

Building evidence for conservation globally

Journal of Threatened Taxa



Open Access

10.11609/jott.2025.17.11.27787-28010

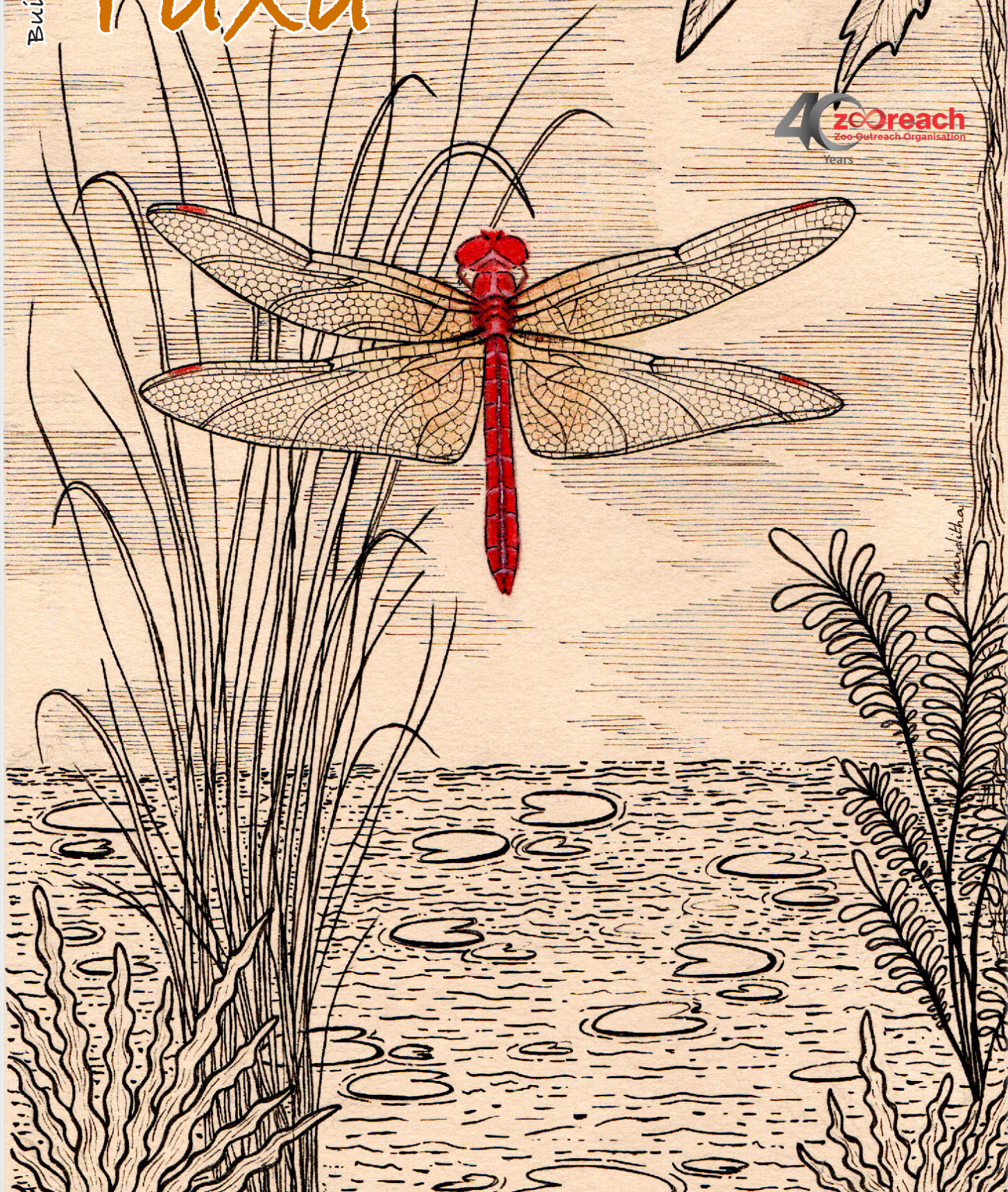
www.threatenedtaxa.org

26 November 2025 (Online & Print)

17(11): 27787-28010

ISSN 0974-7907 (Online)

ISSN 0974-7893 (Print)





ISSN 0974-7907 (Online); ISSN 0974-7893 (Print)

Publisher
Wildlife Information Liaison Development Society
www.wild.zooreach.org

Host
Zoo Outreach Organization
www.zooreach.org

Srivari Illam, No. 61, Karthik Nagar, 10th Street, Saravanampatti, Coimbatore, Tamil Nadu 641035, India
Registered Office: 3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore, Tamil Nadu 641006, India
Ph: +91 9385339863 | www.threatenedtaxa.org
Email: sanjay@threatenedtaxa.org

EDITORS

Founder & Chief Editor

Dr. Sanjay Molur

Wildlife Information Liaison Development (WILD) Society & Zoo Outreach Organization (ZOO),
Coimbatore, Tamil Nadu 641006, India

Assistant Editor

Dr. Chaithra Shree J., WILD/ZOO, Coimbatore, Tamil Nadu 641006, India

Managing Editor

Mr. B. Ravichandran, WILD/ZOO, Coimbatore, Tamil Nadu 641006, India

Associate Editors

Dr. Mandar Paingankar, Government Science College Gadchiroli, Maharashtra 442605, India

Dr. Ulrike Streicher, Wildlife Veterinarian, Eugene, Oregon, USA

Ms. Priyanka Iyer, ZOO/WILD, Coimbatore, Tamil Nadu 641006, India

Board of Editors

Dr. Russel Mittermeier

Executive Vice Chair, Conservation International, Arlington, Virginia 22202, USA

Prof. Mewa Singh Ph.D., FASc, FNA, FNAsc, FNAPsy

Ramanna Fellow and Life-Long Distinguished Professor, Biopsychology Laboratory, and
Institute of Excellence, University of Mysore, Mysuru, Karnataka 570006, India; Honorary
Professor, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore; and Adjunct
Professor, National Institute of Advanced Studies, Bangalore

Stephen D. Nash

Scientific Illustrator, Conservation International, Dept. of Anatomical Sciences, Health Sciences
Center, T-8, Room 045, Stony Brook University, Stony Brook, NY 11794-8081, USA

Dr. Fred Pluthero

Toronto, Canada

Dr. Priya Davidar

Sigur Nature Trust, Chadapatti, Mavinhalla PO, Nilgiris, Tamil Nadu 643223, India

Dr. John Fellowes

Honorary Assistant Professor, The Kadoorie Institute, 8/F, T.T. Tsui Building, The University of
Hong Kong, Pokfulam Road, Hong Kong

Prof. Dr. Mirco Solé

Universidade Estadual de Santa Cruz, Departamento de Ciências Biológicas, Vice-coordenador
do Programa de Pós-Graduação em Zoologia, Rodovia Ilhéus/Itabuna, Km 16 (45662-000)
Salobrinho, Ilhéus - Bahia - Brasil

Dr. Rajeev Raghavan

Professor of Taxonomy, Kerala University of Fisheries & Ocean Studies, Kochi, Kerala, India

English Editors

Mrs. Mira Bhojwani, Pune, India

Dr. Fred Pluthero, Toronto, Canada

Copy Editors

Ms. Usha Madgunaki, Zooreach, Coimbatore, India

Ms. Trisa Bhattacharjee, Zooreach, Coimbatore, India

Ms. Paloma Noronha, Daman & Diu, India

Web Development

Mrs. Latha G. Ravikumar, ZOO/WILD, Coimbatore, India

Typesetting

Mrs. Radhika, Zooreach, Coimbatore, India

Mrs. Geetha, Zooreach, Coimbatore, India

Fundraising/Communications

Mrs. Payal B. Molur, Coimbatore, India

Subject Editors 2021–2023

Fungi

Dr. B. Shivaraju, Bengaluru, Karnataka, India

Dr. R.K. Verma, Tropical Forest Research Institute, Jabalpur, India

Dr. Vatsavaya S. Raju, Kakatiya University, Warangal, Andhra Pradesh, India

Dr. M. Krishnappa, Jnana Sahyadri, Kuvempu University, Shimoga, Karnataka, India

Dr. K.R. Sridhar, Mangalore University, Mangalagangothri, Mangalore, Karnataka, India

Dr. Gunjan Biswas, Vidyasagar University, Midnapore, West Bengal, India

Dr. Kiran Ramchandra Ranadive, Annasaheb Magar Mahavidyalaya, Maharashtra, India

Plants

Dr. G.P. Sinha, Botanical Survey of India, Allahabad, India

Dr. N.P. Balakrishnan, Ret. Joint Director, BSI, Coimbatore, India

Dr. Shonil Bhagwat, Open University and University of Oxford, UK

Prof. D.J. Bhat, Retd. Professor, Goa University, Goa, India

Dr. Ferdinando Boero, Università del Salento, Lecce, Italy

Dr. Dale R. Calder, Royal Ontario Museum, Toronto, Ontario, Canada

Dr. Cleofas Cervancia, Univ. of Philippines Los Baños College Laguna, Philippines

Dr. F.B. Vincent Florens, University of Mauritius, Mauritius

Dr. Merlin Franco, Curtin University, Malaysia

Dr. V. Irudayaraj, St. Xavier's College, Palayamkottai, Tamil Nadu, India

Dr. B.S. Kholia, Botanical Survey of India, Gangtok, Sikkim, India

Dr. Pankaj Kumar, Department of Plant and Soil Science, Texas Tech University, Lubbock, Texas, USA.

Dr. V. Sampath Kumar, Botanical Survey of India, Howrah, West Bengal, India

Dr. A.J. Solomon Raju, Andhra University, Visakhapatnam, India

Dr. Vijayasankar Raman, University of Mississippi, USA

Dr. B. Ravi Prasad Rao, Sri Krishnadevaraya University, Anantpur, India

Dr. K. Ravikumar, FRLHT, Bengaluru, Karnataka, India

Dr. Aparna Watve, Pune, Maharashtra, India

Dr. Qiang Liu, Xishuangbanna Tropical Botanical Garden, Yunnan, China

Dr. Noor Azhar Mohamed Shazili, Universiti Malaysia Terengganu, Kuala Terengganu, Malaysia

Dr. M.K. Vasudeva Rao, Shiv Ranjani Housing Society, Pune, Maharashtra, India

Prof. A.J. Solomon Raju, Andhra University, Visakhapatnam, India

Dr. Mandar Datar, Agharkar Research Institute, Pune, Maharashtra, India

Dr. M.K. Janarthanam, Goa University, Goa, India

Dr. K. Karthikeyan, Botanical Survey of India, India

Dr. Errol Vela, University of Montpellier, Montpellier, France

Dr. P. Lakshminarasimhan, Botanical Survey of India, Howrah, India

Dr. Larry R. Noblick, Montgomery Botanical Center, Miami, USA

Dr. K. Haridasan, Pallavur, Palakkad District, Kerala, India

Dr. Analinda Manila-Fajard, University of the Philippines Los Baños, Laguna, Philippines

Dr. P.A. Sinu, Central University of Kerala, Kasaragod, Kerala, India

Dr. Afroz Alam, Banasthali Vidyapith (accredited A grade by NAAC), Rajasthan, India

Dr. K.P. Rajesh, Zamorin's Guruvayurappan College, GA College PO, Kozhikode, Kerala, India

Dr. David E. Boufford, Harvard University Herbaria, Cambridge, MA 02138-2020, USA

Dr. Ritesh Kumar Choudhary, Agharkar Research Institute, Pune, Maharashtra, India

Dr. A.G. Pandurangan, Thiruvananthapuram, Kerala, India

Dr. Navendu Page, Wildlife Institute of India, Chandrabani, Dehradun, Uttarakhand, India

Dr. Kannan C.S. Warriar, Institute of Forest Genetics and Tree Breeding, Tamil Nadu, India

Invertebrates

Dr. R.K. Avasthi, Rohtak University, Haryana, India

Dr. D.B. Bastawade, Maharashtra, India

Dr. Partha Pratim Bhattacharjee, Tripura University, Suryamaninagar, India

Dr. Kailash Chandra, Zoological Survey of India, Jabalpur, Madhya Pradesh, India

Dr. Ansie Dippenaar-Schoeman, University of Pretoria, Queenswood, South Africa

Dr. Rory Dow, National Museum of Natural History Naturalis, The Netherlands

Dr. Brian Fisher, California Academy of Sciences, USA

Dr. Richard Gallon, Llandudno, North Wales, LL30 1UP

Dr. Hemant V. Ghate, Modern College, Pune, India

Dr. M. Monwar Hossain, Jahangirnagar University, Dhaka, Bangladesh

For Focus, Scope, Aims, and Policies, visit https://threatenedtaxa.org/index.php/JoTT/aims_scope
For Article Submission Guidelines, visit <https://threatenedtaxa.org/index.php/JoTT/about/submissions>
For Policies against Scientific Misconduct, visit https://threatenedtaxa.org/index.php/JoTT/policies_various

continued on the back inside cover

Cover: A male Scarlet Skimmer perching on vegetation by the banks of a waterbody. Ink and watercolour illustration by Ananditha Pascal.



INTRODUCTION

Avifauna represent highly reliable bio-indicators and serve as effective model organisms for addressing a wide spectrum of environmental concerns due to their pronounced sensitivity to even subtle ecological alterations. They provide critical insights into the health status and functional productivity of ecosystems (Newton 1995; Desai & Shanbhag 2007; Li & Mundkur 2007). Within the Indian subcontinent, the extensive diversity of wetland habitats contributes to a rich avian assemblage, simultaneously functioning as significant wintering refuges for numerous migratory waterbird species. The state of Uttar Pradesh has 31 Important Bird and Biodiversity Areas (IBAs) and 25 protected areas (Rahmani et al. 2016). In the past, studies have been conducted on bird diversity in rural-urban gradients (Siddiqui et al. 2019), agricultural landscapes (Yashmita-Ulman & Singh 2021), unprotected wetlands (Yashmita-Ulman & Singh 2022), riverine systems (Varghese et al. 2007; Yashmita-Ulman 2022) and university campus (Yashmita-Ulman 2023) in Uttar Pradesh. Bird diversity of protected areas in Uttar Pradesh, such as Hastinapur Wildlife Sanctuary (Khan et al. 2013), Okhla Bird Sanctuary (Upadhyay et al. 2019), and Sandi Bird Sanctuary (Khan & Khalid 2024) have been assessed. Previous studies in Parwati Arga Bird Sanctuary have been conducted on biodiversity (Verma et al. 2023), and floristic composition (Khanna 2015; Singh et al. 2016; Singh & Srivastava 2023). But to date, the bird diversity studies are unreported, making this study a pioneering attempt in preparing an inventory of birds in Parwati Arga Bird Sanctuary.

MATERIALS AND METHODS

Study Area

The present investigation was undertaken at the Parwati Arga Bird Sanctuary, situated in Tarabganj Tehsil of Gonda District, Uttar Pradesh, encompassing an area of approximately 1,084.47 ha (Rahmani et al. 2016). The site was officially designated as a Bird Sanctuary on 23 May 1990. The sanctuary is characterized by extensive vegetation interspersed with oxbow lakes, namely, Parwati (a deep-water lake) and Arga (a shallow-water lake), both originating from natural depressions and forming a hoof-shaped configuration (Rahmani et al. 2011) (Figure 1).

Geomorphologically, the area represents a part of the paleochannel of the Ghaghara River, which,

during its southward course, left behind several minor streams (Agarwal & Mishra 1987). These lakes maintain hydrological connectivity with the Terhi River via the Gulriha Nala. Geographically, the Parwati and Arga lakes are located between 26.955° N, 82.174° E, having an elevation of approximately 93 m. The prevailing climate can be classified as moist mid-latitude, with moderately cold winters and intensely hot summers. The region receives an average annual rainfall of about 1,240 mm, while the temperature ranges from a minimum of 4°C in winter to a maximum of 48°C in summer (Rahmani et al. 2016). Importantly, the Parwati Arga Wetland holds international conservation significance as it has been designated a Ramsar site on 2 December 2019, having fulfilled criteria 2, 3, 4, 5, and 8 under the Ramsar Convention framework (Ramsar Convention 1971; Site Management Plan 2011). The sanctuary also has been accorded IBA status in criteria A1, A4iii (Rahmani et al. 2016).

Method

Bird surveys were conducted monthly using the point-count method (Bibby et al. 2000) from March 2024–February 2025. On the perimeter of each wetland (Parwati and Arga), two points were fixed, making a total of four points, each of which was 250 m apart from each other (Figure 1). Each point was surveyed four times in a month, making a total of 48 replicates of each point during the one-year duration. Observations were made from 0600–1000 h during clear weather for 15 min at each point count. The species name and number of individuals of the species detected within 150 m of the observer were noted down. A Nikon 7 x 35 binocular was used to aid the sighting of species. Bird identification and residential status classification for each species were done using the standard field guide (Grimmett et al. 2011). Both the conservation status and global population trend of each bird species recorded were updated using the Red List of IUCN (2025).

RESULTS

In the present study, a total of 140 species of birds belonging to 53 families and 19 orders were recorded in the Parwati Arga Bird Sanctuary (Table 1). The order Passeriformes recorded the highest number of bird species (45) (Table 1). Out of recorded bird species, resident bird species were 110 (78%), winter visitors were 29 (21%) and summer visitor was 1 (1%) (Table 1 & Figure 2). One ‘Endangered’ species (Egyptian

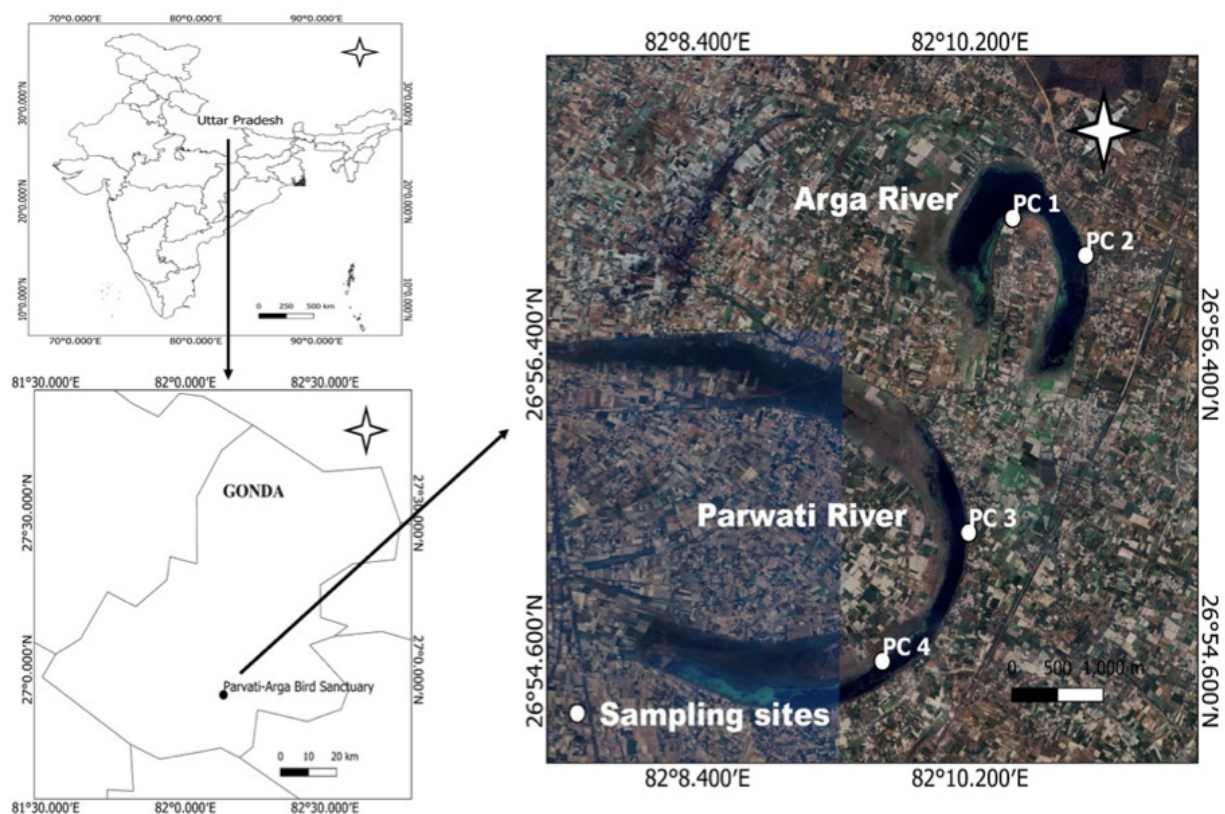


Figure 1. The study area and sampling locations. PC—Point count.

Vulture *Neophron percnopterus*), four ‘Vulnerable’ species (Sarus Crane *Grus antigone*, Common Pochard *Aythya ferina*, Indian Spotted Eagle *Clanga hastata*, and River Tern *Sterna aurantia*), and six ‘Near Threatened’ species (Great Thick-knee *Esacus recurvirostris*, River Lapwing *Vanellus duvaucelii*, Black-necked Stork *Ephippiorhynchus asiaticus*, Lesser Adjutant *Leptoptilos javanicus*, Asian Woollyneck *Ciconia episcopus*, and Oriental Darter *Anhinga melanogaster*) were recorded (Table 1 & Figure 3). According to the global population trend of IUCN (2025), 49 species (35%) were decreasing, 39 species (27%) were stable, 26 species (19%) were increasing, and 26 species (19%) were unknown (Table 1 & Figure 4). Overall, 29 families recorded single species each and five families recorded two species each (Table 1).

The family Anatidae recorded the highest species richness (14 species), followed by the families Accipitridae (9 species) and Ardeidae (8 species) (Table 1). Families Anatidae and Scolopacidae comprised mostly of all winter migrants, exceptions being Knob-billed Duck *Sarkidiornis melanotos*, Cotton Pygmy-goose *Nettapus coromandelianus*, Lesser Whistling-duck *Dendrocygna javanica*, and Indian Spot-billed

Duck *Anas poecilorhyncha*, which are resident (Table 1). Families Ardeidae, Strigidae, Columbidae, Cisticolidae, and Sturnidae comprised of all resident birds. The Blue-tailed Bee-eater *Merops philippinus* was the only summer visitor (Table 1).

DISCUSSION

The current study records 140 species of birds, which is higher than the number of species recorded in other bird sanctuaries of Uttar Pradesh, e.g., Hastinapur Wildlife Sanctuary (117 species) (Khan et al. 2013), but lesser than the species recorded at Okhla Bird Sanctuary (302 species) (Upadhyay et al. 2019). Other studies from different bird sanctuaries in Tamil Nadu such as Therthangal (96) (Byju et al. 2024), Chitrakudi (122), Melsevanoor-Kelselvanoor (117), Sakkarakottai (116) (Byju et al. 2025) and Pakhibitan Bird and Wildlife Sanctuary, West Bengal (124) (Roy et al. 2024) reported lower bird species than the current study, whereas Manjeera Wildlife Sanctuary, Andhra Pradesh (164) (Prasad et al. 2014) and Samanatham Bird Sanctuary, Tamil Nadu (150) (Byju et al. 2023) reported higher bird

Table 1. Avian diversity recorded in Parwati Arga Bird Sanctuary.

	Scientific name	Common name	IUCN Red List status	GPT	RS
Accipitriformes Accipitridae (9)					
1	<i>Accipiter badius</i>	Shikra	LC	→	R
2	<i>Circaetus gallicus</i>	Short-toed Eagle	LC	→	R
3	<i>Circus melanoleucos</i>	Pied Harrier	LC	↓	WV
4	<i>Clanga hastata</i>	Indian Spotted Eagle	VU	↓	R
5	<i>Elanus caeruleus</i>	Black-winged Kite	LC	→	R
6	<i>Milvus migrans</i>	Black Kite	LC	→	R
7	<i>Neophron percnopterus</i>	Egyptian Vulture	EN	↓	R
8	<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	LC	↓	R
9	<i>Spilornis cheela</i>	Crested Serpent-eagle	LC	→	R
Anseriformes Anatidae (14)					
10	<i>Anas crecca</i>	Common Teal	LC	?	WV
11	<i>Anas platyrhynchos</i>	Mallard	LC	↑	WV
12	<i>Anas poecilorhyncha</i>	Indian Spot-billed Duck	LC	↓	R
13	<i>Anser anser</i>	Greylag Goose	LC	↑	WV
14	<i>Anser indicus</i>	Bar-headed Goose	LC	↓	WV
15	<i>Aythya ferina</i>	Common Pochard	VU	↓	WV
16	<i>Dendrocygna javanica</i>	Lesser Whistling-duck	LC	↓	R
17	<i>Mareca strepera</i>	Gadwall	LC	↑	WV
18	<i>Nettapus coromandelianus</i>	Cotton Pygmy-goose	LC	?	R
19	<i>Sarkidiornis melanotos</i>	Knob-billed Duck	LC	↓	R
20	<i>Spatula clypeata</i>	Northern Shoveler	LC	↓	WV
21	<i>Spatula querquedula</i>	Garganey	LC	↓	WV
22	<i>Tadorna ferruginea</i>	Ruddy Shelduck	LC	?	WV
23	<i>Tadorna tadorna</i>	Common Shelduck	LC	↑	WV
Apodiformes Apodidae (1)					
24	<i>Cypsiurus balasiensis</i>	Asian Palm Swift	LC	→	R
Bucerotiformes Bucerotidae (1)					
25	<i>Ocyrceros birostris</i>	Indian Grey Hornbill	LC	→	R
Bucerotiformes Upupidae (1)					
26	<i>Upupa epops</i>	Common Hoopoe	LC	↓	R
Charadriiformes Burhinidae (2)					
27	<i>Burhinus indicus</i>	Indian Thick-knee	LC	?	R
28	<i>Esacus recurvirostris</i>	Great Thick-knee	NT	↓	R

	Scientific name	Common name	IUCN Red List status	GPT	RS
Charadriiformes Charadriidae (4)					
29	<i>Charadrius dubius</i>	Little Ringed Plover	LC	→	R
30	<i>Vanellus duvaucelii</i>	River Lapwing	NT	↓	R
31	<i>Vanellus indicus</i>	Red-wattled Lapwing	LC	?	R
32	<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing	LC	→	R
Charadriiformes Glareolidae (1)					
33	<i>Glareola lactea</i>	Little Pratincole	LC	?	R
Charadriiformes Jacanidae (2)					
34	<i>Hydrophasianus chirurgus</i>	Pheasant-tailed Jacana	LC	?	R
35	<i>Metopidius indicus</i>	Bronze-winged Jacana	LC	?	R
Charadriiformes Laridae (1)					
36	<i>Sterna aurantia</i>	River Tern	VU	↓	R
Charadriiformes Recurvirostridae (1)					
37	<i>Himantopus himantopus</i>	Black-winged Stilt	LC	↑	WV
Charadriiformes Scolopacidae (4)					
38	<i>Actitis hypoleucos</i>	Common Sandpiper	LC	↓	WV
39	<i>Calidris minuta</i>	Little Stint	LC	↑	WV
40	<i>Gallinago gallinago</i>	Common Snipe	LC	↓	WV
41	<i>Tringa nebularia</i>	Common Greenshank	LC	→	WV
Ciconiiformes Ciconiidae (7)					
42	<i>Anastomus oscitans</i>	Asian Openbill	LC	?	R
43	<i>Ciconia ciconia</i>	White Stork	LC	↑	WV
44	<i>Ciconia episcopus</i>	Asian Woollyneck	NT	↓	R
45	<i>Ciconia nigra</i>	Black Stork	LC	?	WV
46	<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	NT	↓	R
47	<i>Leptoptilos javanicus</i>	Lesser Adjutant	NT	?	R
48	<i>Mycteria leucocephala</i>	Painted Stork	LC	↑	WV
Columbiformes Columbidae (5)					
49	<i>Columba livia</i>	Blue Rock Pigeon	LC	↓	R
50	<i>Spilopelia chinensis</i>	Spotted Dove	LC	↑	R
51	<i>Streptopelia decaocto</i>	Eurasian Collared-dove	LC	↑	R
52	<i>Streptopelia orientalis</i>	Oriental Turtle-dove	LC	↓	R
53	<i>Treron phoenicopterus</i>	Yellow-footed Green-pigeon	LC	↑	R
Coraciiformes Alcedinidae (3)					
54	<i>Alcedo atthis</i>	Common Kingfisher	LC	↓	R
55	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	LC	↑	R

	Scientific name	Common name	IUCN Red List status	GPT	RS
56	<i>Pelargopsis capensis</i>	Stork-billed Kingfisher	LC	↓	R
Coraciiformes Coraciidae (1)					
57	<i>Coracias benghalensis</i>	Indian Roller	LC	↑	R
Coraciiformes Meropidae (1)					
58	<i>Merops philippinus</i>	Blue-tailed Bee-eater	LC	→	SV
Cuculiformes Cuculidae (1)					
59	<i>Centropus sinensis</i>	Greater Coucal	LC	→	R
Falconiformes Falconidae (1)					
60	<i>Falco tinnunculus</i>	Common Kestrel	LC	↓	R
Galliformes Phasianidae (3)					
61	<i>Francolinus pondicerianus</i>	Grey Francolin	LC	→	R
62	<i>Gallus gallus</i>	Red Junglefowl	LC	↓	R
63	<i>Pavo cristatus</i>	Indian Peafowl	LC	→	R
Gruiformes Gruidae (1)					
64	<i>Grus antigone</i>	Sarus Crane	VU	↓	R
Gruiformes Rallidae (5)					
65	<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	LC	?	R
66	<i>Fulica atra</i>	Eurasian Coot	LC	↑	WV
67	<i>Gallinix cinerea</i>	Watercock	LC	↓	R
68	<i>Gallinula chloropus</i>	Common Moorhen	LC	→	R
69	<i>Porphyrio poliocephalus</i>	Grey-headed Swampphen	LC	?	R
Passeriformes Aegithinidae (1)					
70	<i>Aegithina tiphia</i>	Common Iora	LC	?	R
Passeriformes Cisticolidae (5)					
71	<i>Cisticola juncidis</i>	Zitting Cisticola	LC	?	R
72	<i>Orthotomus sutorius</i>	Common Tailorbird	LC	→	R
73	<i>Prinia hodgsonii</i>	Grey-breasted Prinia	LC	↓	R
74	<i>Prinia inornata</i>	Plain Prinia	LC	→	R
75	<i>Prinia socialis</i>	Ashy Prinia	LC	→	R
Passeriformes Corvidae (3)					
76	<i>Corvus macrorhynchos</i>	Large-billed Crow	LC	↓	R
77	<i>Corvus splendens</i>	House Crow	LC	→	R
78	<i>Dendrocitta vagabunda</i>	Rufous Treepie	LC	↓	R
Passeriformes Dicruridae (3)					
79	<i>Dicrurus caerulescens</i>	White-bellied Drongo	LC	↓	R
80	<i>Dicrurus leucophaeus</i>	Ashy Drongo	LC	?	R
81	<i>Dicrurus macrocerus</i>	Black Drongo	LC	?	R

	Scientific name	Common name	IUCN Red List status	GPT	RS
Passeriformes Estrildidae (4)					
82	<i>Amandava amandava</i>	Red Avadavat	LC	→	R
83	<i>Euodice malabarica</i>	Indian Silverbill	LC	→	R
84	<i>Lonchura malacca</i>	Tricoloured Munia	LC	→	R
85	<i>Lonchura punctulata</i>	Scaly-breasted Munia	LC	→	R
Passeriformes Hirundinidae (1)					
86	<i>Hirundo rustica</i>	Barn Swallow	LC	↓	WV
Passeriformes Laniidae (1)					
87	<i>Lanius schach</i>	Long-tailed Shrike	LC	?	R
Passeriformes Leiothrichidae (1)					
88	<i>Turdoides striata</i>	Jungle Babbler	LC	→	R
Passeriformes Monarchidae (1)					
89	<i>Terpsiphone paradisi</i>	Asian Paradise Flycatcher	LC	→	R
Passeriformes Motacillidae (4)					
90	<i>Anthus rufulus</i>	Paddyfield Pipit	LC	→	R
91	<i>Motacilla alba</i>	White Wagtail	LC	→	WV
92	<i>Motacilla cinerea</i>	Grey Wagtail	LC	→	WV
93	<i>Motacilla citreola</i>	Citrine Wagtail	LC	↑	WV
Passeriformes Muscicapidae (6)					
94	<i>Copsychus malabaricus</i>	White-rumped Shama	LC	↓	R
95	<i>Copsychus saularis</i>	Oriental Magpie-robin	LC	→	R
96	<i>Eumyias thalassinus</i>	Verditer Flycatcher	LC	↓	WV
97	<i>Luscinia svecica</i>	Bluethroat	LC	→	WV
98	<i>Oenanthe fusca</i>	Brown Rockchat	LC	→	R
99	<i>Saxicola ferrea</i>	Grey Bushchat	LC	→	WV
Passeriformes Nectariniidae (1)					
100	<i>Cinnyris asiaticus</i>	Purple Sunbird	LC	→	R
Passeriformes Oriolidae (1)					
101	<i>Oriolus xanthornus</i>	Black-hooded Oriole	LC	→	R
Passeriformes Paridae (1)					
102	<i>Parus cinereus</i>	Cinereous Tit	LC	→	R
Passeriformes Passeridae (1)					
103	<i>Passer domesticus</i>	House Sparrow	LC	↓	R
Passeriformes Ploceidae (1)					
104	<i>Ploceus philippinus</i>	Baya Weaver	LC	→	R
Passeriformes Pycnonotidae (1)					
105	<i>Pycnonotus cafer</i>	Red-vented Bulbul	LC	↑	R
Passeriformes Rhipiduridae (1)					
106	<i>Rhipidura albicollis</i>	White-throated Fantail	LC	↓	R

	Scientific name	Common name	IUCN Red List status	GPT	RS
Passeriformes Sittidae (1)					
107	<i>Sitta castanea</i>	Indian Nuthatch	LC	↑	R
Passeriformes Stenostiridae (1)					
108	<i>Culicicapa ceylonensis</i>	Grey-headed Canary-flycatcher	LC	↓	WV
Passeriformes Strunidae (5)					
109	<i>Acridotheres fuscus</i>	Jungle Myna	LC	↓	R
110	<i>Acridotheres ginginianus</i>	Bank Myna	LC	↑	R
111	<i>Acridotheres tristis</i>	Common Myna	LC	↑	R
112	<i>Gracupica contra</i>	Asian Pied Starling	LC	↑	R
113	<i>Sturnia pagodarum</i>	Brahminy Starling	LC	?	R
Passeriformes Zosteropidae (1)					
114	<i>Zosterops palpebrosus</i>	Indian White-eye	LC	↓	R
Pelecaniformes Ardeidae (8)					
115	<i>Ardea cinerea</i>	Grey Heron	LC	?	R
116	<i>Ardea purpurea</i>	Purple Heron	LC	↓	R
117	<i>Ardeola grayii</i>	Indian Pond-heron	LC	?	R
118	<i>Dupetor flavicollis</i>	Black Bittern	LC	?	R
119	<i>Egretta alba</i>	Great White Egret	LC	?	R
120	<i>Egretta garzetta</i>	Little Egret	LC	↑	R
121	<i>Egretta intermedia</i>	Intermediate Egret	LC	↓	R
122	<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	LC	↓	R
Pelecaniformes Threskiornithidae (2)					
123	<i>Pseudibis papillosa</i>	Red-naped Ibis	LC	↓	R
124	<i>Threskiornis melanocephalus</i>	Black-headed Ibis	LC	↑	R

	Scientific name	Common name	IUCN Red List status	GPT	RS
Piciformes Megalaimidae (1)					
125	<i>Psilopogon haemacephalus</i>	Coppersmith Barbet	LC	↑	R
Podicipediformes Podicipedidae (2)					
126	<i>Podiceps cristatus</i>	Great Crested Grebe	LC	?	WV
127	<i>Tachybaptus ruficollis</i>	Little Grebe	LC	↓	R
Psittaciformes Psittaculidae (2)					
128	<i>Alexandrinus krameri</i>	Rose-ringed Parakeet	LC	↑	R
129	<i>Himalayapsitta cyanocephala</i>	Plum-headed Parakeet	LC	↓	R
Strigiformes Strigidae (6)					
130	<i>Athene brama</i>	Spotted Owlet	LC	→	R
131	<i>Bubo bengalensis</i>	Indian Eagle-owl	LC	↓	R
132	<i>Glaucidium radiatum</i>	Jungle Owlet	LC	↓	R
133	<i>Ketupa zeylonensis</i>	Brown Fish-owl	LC	↓	R
134	<i>Ninox scutulata</i>	Brown Hawk-owl	LC	↓	R
135	<i>Otus bakkamoena</i>	Indian Scops-owl	LC	→	R
Strigiformes Tytonidae (1)					
136	<i>Tyto alba</i>	Common Barn-owl	LC	→	R
Suliformes Anhingidae (1)					
137	<i>Anhinga melanogaster</i>	Oriental Darter	NT	↑	R
Suliformes Phalacrocoracidae (3)					
138	<i>Microcarbo niger</i>	Little Cormorant	LC	?	R
139	<i>Phalacrocorax carbo</i>	Great Cormorant	LC	↑	R
140	<i>Phalacrocorax fuscicollis</i>	Indian Cormorant	LC	?	R

IUCN Red List status (IUCN 2025): LC—Least concern | NT—Near Threatened | VU—Vulnerable | EN—Endangered. GPT (Global Population Trend) (IUCN 2025): →—Stable | ↓—Decreasing | ↑—Increasing | ?—Unknown. RS (Residential Status): R—Resident, WV—Winter Visitor, SV—Summer Visitor

species than the current study. The number of winter migrants (n = 29) recorded in this study is higher than that recorded in Hastinapur Wildlife Sanctuary, Uttar Pradesh (19 species; Joshi et al. 2021) and lower than that recorded in Okhla Bird Sanctuary, Uttar Pradesh (40 species; Mazumdar 2019). The current study recorded 11 threatened bird species, which is similar to the results obtained in Hastinapur Wildlife Sanctuary, Uttar Pradesh (11 species; Joshi et al. 2021) and higher than the species recorded in Bhimbandh Wildlife Sanctuary, Bihar (five species; Khan & Pant 2017) and Okhla Bird Sanctuary, Uttar Pradesh (10 species; Mazumdar 2019).

Parwati Arga Bird Sanctuary hosts diverse flora and

fauna, including many resident, rare, and migratory species due to its diverse habitats consisting of two oxbow lakes having freshwater ecosystems, along with marshes, swamps, interspersed with agricultural fields and adjoining Tikri Reserve Forest (Image 1). These habitats support the foraging, nesting, and roosting activities of waterbirds and terrestrial birds (Hattori & Mae 2001). The availability of fish in lakes, grains, and insects in the adjacent agricultural fields & grasslands provides good foraging ground for the birds (Prasad et al. 2014; Anand et al. 2023), whereas the aquatic vegetation and adjoining forests provide shelter, escape routes, cover, and nesting sites, attracting diverse birds

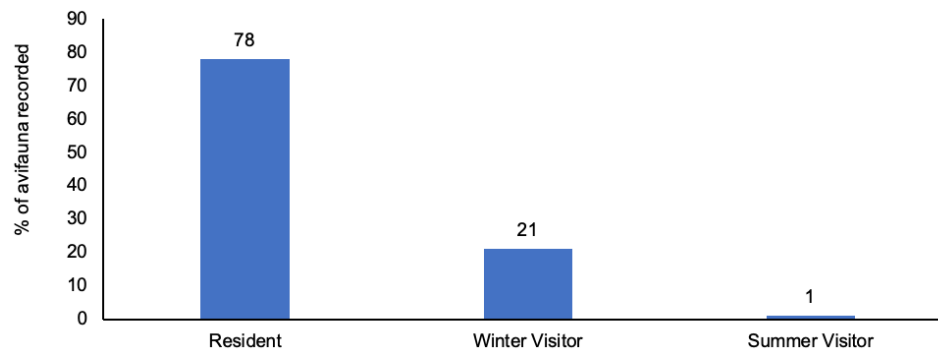


Figure 2. Residential status of the avifaunal species recorded in Parwati Arga Bird Sanctuary.

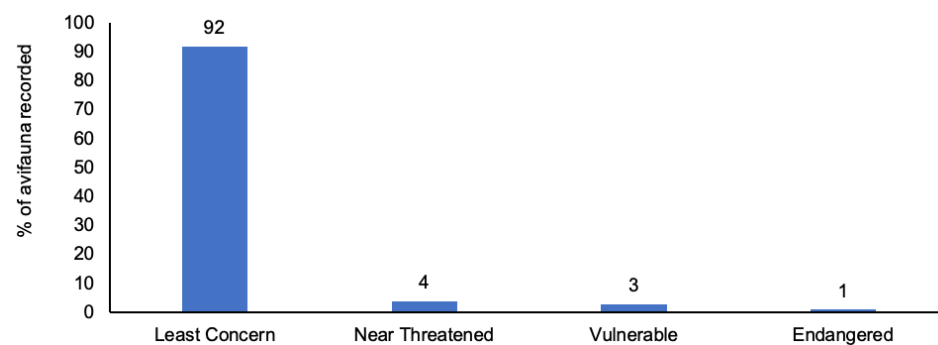


Figure 3. IUCN Red List status of the avifaunal species recorded in Parwati Arga Bird Sanctuary.

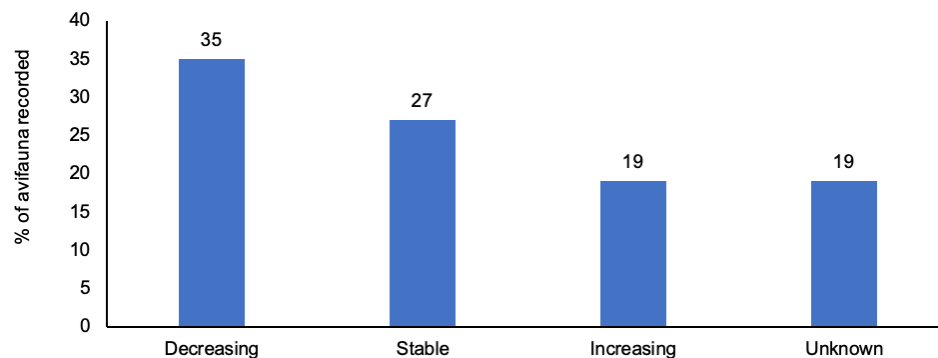


Figure 4. Global population trend of the avifaunal species recorded in Parwati Arga Bird Sanctuary.

(Yashmita-Ulman & Singh 2022). The shallow water bodies with variable depths (Colwell & Taft 2000) might also be a factor attracting birds in the Sanctuary. In the current study, the family Anatidae recorded the highest species richness. This is similar to the findings of Kumar & Gupta (2013) in Chhilchhila Wildlife Sanctuary, Haryana and Prasad et al. (2014) in Manjeera Wildlife Sanctuary, Andhra Pradesh. Families Anatidae and Scolopacidae comprised most of the winter migratory birds, and only one summer visitor was found, which is similar to the results obtained by Prasad et al. (2014) in Manjeera

Wildlife Sanctuary, Andhra Pradesh.

The study results highlight the importance of the Sanctuary for the resident and migratory birds. Therefore, long-term monitoring of birds and threat assessment is required to assess the impact of the changing environment and surrounding landscapes on the birds of the Sanctuary. This scientific database is a prerequisite for scientific management and conservation of the sanctuary by the forest department.



Aquatic vegetation in Parwati Arga Bird Sanctuary.



Agricultural fields and forests adjacent Parwati Arga Bird Sanctuary

Image 1. Diverse habitats of Parwati Arga Bird Sanctuary. © Rajesh Kumar.

REFERENCES

- Agarwal, C.S. & A.K. Mishra (1987). Visual interpretation of FCC satellite data for channel migration and water logging conditions along Ghaghra and Terhi rivers in part of district Gonda and Bahraich, U.P. *Journal of the Indian Society of Remote Sensing* 15(1): 19–28. <https://doi.org/10.1007/BF03003665>
- Anand, J., H. Byju, A. Nefla, S. Abhijith, O.R. Reshi & K.M. Aarif (2023). Conservation significance of Changaram wetlands - a key wintering site for migratory shorebirds and other waterbirds in the western coast of Kerala, India. *Journal of Threatened Taxa* 15(1): 22410–22418. <https://doi.org/10.11609/jott.8089.15.1.22410-22418>
- Bibby, C.J., D.A. Hill, N.D. Burgess & S. Mustoe (2000). *Bird census techniques*. Academic Press, London. 302pp.
- Byju, H., N. Raveendran, S. Ravichandran & R. Vijayan (2023). A checklist of the avifauna of Samanatham tank, Madurai, Tamil Nadu, India. *Journal of Threatened Taxa* 15(9): 23857–23869. <https://doi.org/10.11609/jott.8419.15.9.23857-23869>
- Byju, H., H. Maitreyi, N. Raveendran & R. Vijayan (2024). Avifaunal diversity assessment and conservation significance of Therthangal Bird Sanctuary, Ramanathapuram, Tamil Nadu: insights about breeding waterbirds. *Journal of Threatened Taxa* 16(9): 25802–25815. <https://doi.org/10.11609/jott.8999.16.9.25802-25815>
- Byju, H., H. Maitreyi, R. Natarajan, R. Vijayan & B.A.V. Maran (2025). The avifauna of Ramanathapuram, Tamil Nadu along the southeast coast of India: waterbird assessments and conservation implications across key sanctuaries and Ramsar sites. *PeerJ* 13: e18899 <https://doi.org/10.7717/peerj.18899>
- Colwell, M.A. & O.W. Taft (2000). Waterbird communities in managed wetlands of varying water depth. *Waterbirds* 23(1): 45–55. <https://www.jstor.org/stable/4641109>
- Desai, M. & A. Shanbhag (2007). Birds breeding in unmanaged monoculture plantations in Goa, India. *Indian Forester* 133: 1367–1372. <http://irgu.unigoa.ac.in/drs/handle/unigoa/2068>
- Grimmett, R., C. Inskipp & T. Inskipp (2011). *Birds of the Indian Subcontinent*. Oxford University Press & Christopher Helm, London, 480 pp.
- Hattori, A. & S. Mae (2001). Habitat use and diversity of waterbirds in a coastal lagoon around Lake Biwa, Japan. *Ecological Research* 16: 543–553.
- IUCN (2025). The IUCN Red List of Threatened Species. Version 2021-3. <http://www.iucnredlist.org>.
- Joshi, K., D. Kumar, A.K. Arya & A. Bachheti (2021). An assessment of waterbird species and associated water bird composition in the Haiderpur wetland of Hastinapur Wildlife Sanctuary, Uttar Pradesh, India. *Asian Journal of Conservation Biology* 10(1): 141–145. <https://doi.org/10.53562/ajcb.DCKB1009>
- Khan, M. & M.A. Khalid (2024). Study on the diversity of bird population found at Sandi Bird Sanctuary, Hardoi, Uttar Pradesh. *Journal of Experimental Zoology India* 27(2): 1753. <https://doi.org/10.51470/JEZ.2024.27.2.1753>
- Khan, M.S., Aftab, Z. Syed, A. Nawab, O. Ilyas & A. Khan (2013). Composition and conservation status of avian species at Hastinapur Wildlife Sanctuary, Uttar Pradesh, India. *Journal of Threatened Taxa* 5(12): 4714–4721. <https://doi.org/10.11609/JoTT.o3419.4714-21>
- Khan, S.K. & A. Pant (2017). Conservation status, species composition, and distribution of avian community in Bhimbandh Wildlife Sanctuary, India. *Journal of Asia-Pacific Biodiversity* 10: 20–26. <https://doi.org/10.1016/j.japb.2016.07.004>
- Khanna, K.K. (2015). Aquatic and marshy plants of Parvati Arga wetland, Gonda district, Uttar Pradesh, India. *Journal of Economic and Taxonomic Botany* 39(2): 392–406.
- Kumar, P. & S.K. Gupta (2013). Status of wetland birds of Chhilchhila Wildlife Sanctuary, Haryana, India. *Journal of Threatened Taxa* 5(5): 3969–3976. <https://doi.org/10.11609/JoTT.o3158.3969-76>
- Li, Z.W.D. & T. Mundkur (2007). *Numbers and distribution of waterbirds and wetlands in the Asia-Pacific region*. Results of the Asian Waterbird Census: 2002–2004. Wetlands International, Kuala

- Lumpur, Malaysia.
- Mazumdar, S. (2019).** Composition of avian communities in a human-modified wetland Okhla Bird Sanctuary, India: with notes on conservation initiatives. *Proceedings of the Zoological Society* 72: 319–333. <https://doi.org/10.1007/s12595-017-0239-6>
- Newton, I. (1995).** The contribution of some recent research on birds to ecological understanding. *Journal of Animal Ecology* 64: 675–696. <https://doi.org/10.2307/5848>
- Prasad, K.K., B. Ramakrishna, C. Srinivasulu & B. Srinivasulu (2014).** Avifaunal diversity of Manjeera Wildlife Sanctuary, Andhra Pradesh, India. *Journal of Threatened Taxa* 6(2): 5464–5477. <https://doi.org/10.11609/JOTT.03505.5464-77>
- Rahmani, A.R., M.Z. Islam & R.M. Kasambe (2016).** *Important Bird and Biodiversity Areas in India: Priority Sites for Conservation* (Revised and updated). Bombay Natural History Society, Indian Bird Conservation Network, Royal Society for the Protection of Birds and BirdLife International (U.K.). 1992 + xii pp.
- Rahmani, A.R., M.Z. Islam, V.P. Singh & S. Chaudhary (2011).** Important bird areas of Uttar Pradesh: Priority sites for conservation. Katarniaghat Foundation, Lucknow.
- Ramsar Convention (1971).** Convention on wetlands of international importance especially as Waterfowl habitat. <https://www.ramsar.org/document/present-text-of-the-convention-on-wetlands> (Accessed on 2nd February 2023)
- Roy, A.B., T. Samanta, C.S. Samrat, A. Guha, D. Datta, A. Rong & L. Chatterjee (2024).** Importance based on avian diversity of Pakhibitan Bird & Wildlife Sanctuary, Jalpaiguri District, West Bengal, India. *Journal of Threatened Taxa* 16(10): 25990–26000. <https://doi.org/10.11609/jott.9032.16.10.25990-26000>
- Siddiqui, A., T. Ahmed & A. Khan (2019).** Avifaunal assemblage along rural-urban gradients in Aligarh, Uttar Pradesh, India. *Notulae Scientia Biologicae* 11(4): 421–427. <https://doi.org/10.15835/nsb11410487>
- Singh, V., S.K. Srivastava & L.M. Tewari (2016).** Floristic assessment of different habitats of Parvati Aranga Wildlife Sanctuary and adjacent Tikri forest area, Gonda, Uttar Pradesh, India. *Tropical Plant Research* 3(3): 543–550. <https://doi.org/10.22271/tpr.2016.v3.i3.071>
- Singh, V.K. & S.K. Srivastava (2023).** Floristic diversity of Parvati Aranga Wildlife Sanctuary and adjacent Tikri Forest area, Terai region, Gonda, Uttar Pradesh. Botanical Survey of India, 227 pp.
- Site Management Plan (2011).** Parvati Arga Bird Sanctuary, India, Retrieved from Ramsar site information service <https://rsis.ramsar.org/ris/2416>. Accessed on 2.ii.2023.
- Upadhyay, S.K., Babita & R. Singh (2019).** A survey on the endangered avian biodiversity at Okhla Bird Sanctuary (OBS) Noida, Uttar Pradesh, India. *Bulletin of Pure and Applied Sciences* 38A(1): 10–16.
- Varghese, S., S.P. Narayanan, V.M.P. Raj, V.H. Prasad & S.N. Prasad (2007).** Analyses of wetland habitat changes and its impact on avifauna in select districts of the Indo-Gangetic plains of Uttar Pradesh, India, between 1972 and 2004. Proceedings of Taal 2007: The 12th World Lake Conference 2045–2055.
- Verma, S., S. Sanyal & P. Kushwaha (2023).** Evaluating the status of a Ramsar wetland: A study of Parvati Arga in Gonda district, Uttar Pradesh, India. *National Geographic Journal of India* 69(4): 286–298.
- Yashmita-Ulman (2022).** Bird diversity in riverscapes of Ayodhya district, Uttar Pradesh. *Indian Journal of Ecology* 49(1): 280–287. <https://doi.org/10.55362/IJE/2022/3518>
- Yashmita-Ulman (2023).** Bird diversity of Acharya Narendra Deva University of Agriculture & Technology Campus, Ayodhya. *Indian Journal of Ecology* 50(1): 262–271. <https://doi.org/10.55362/IJE/2022/3710>
- Yashmita-Ulman & M. Singh (2021).** Bird composition, diversity and foraging guilds in agricultural landscapes: a case study from eastern Uttar Pradesh, India. *Journal of Threatened Taxa* 13(8): 19011–19028. <https://doi.org/10.11609/jott.7089.13.8.19011-19028>
- Yashmita-Ulman & M. Singh (2022).** Avifaunal diversity in unprotected wetlands of Ayodhya district, Uttar Pradesh, India. *Journal of Threatened Taxa* 14(8): 21561–21578. <https://doi.org/10.11609/jott.7067.14.8.21561-21578>



Mr. Jatishwor Singh Irungbam, Biology Centre CAS, Branišovská, Czech Republic.
 Dr. Ian J. Kitching, Natural History Museum, Cromwell Road, UK
 Dr. George Mathew, Kerala Forest Research Institute, Peechi, India
 Dr. John Noyes, Natural History Museum, London, UK
 Dr. Albert G. Orr, Griffith University, Nathan, Australia
 Dr. Sameer Padhye, Katholieke Universiteit Leuven, Belgium
 Dr. Nancy van der Poorten, Toronto, Canada
 Dr. Kareen Schnabel, NIWA, Wellington, New Zealand
 Dr. R.M. Sharma, (Retd.) Scientist, Zoological Survey of India, Pune, India
 Dr. Manju Siliwal, WILD, Coimbatore, Tamil Nadu, India
 Dr. G.P. Sinha, Botanical Survey of India, Allahabad, India
 Dr. K.A. Subramanian, Zoological Survey of India, New Alipore, Kolkata, India
 Dr. P.M. Sureshan, Zoological Survey of India, Kozhikode, Kerala, India
 Dr. R. Varatharajan, Manipur University, Imphal, Manipur, India
 Dr. Eduard Vives, Museu de Ciències Naturals de Barcelona, Terrassa, Spain
 Dr. James Young, Hong Kong Lepidopterists' Society, Hong Kong
 Dr. R. Sundararaj, Institute of Wood Science & Technology, Bengaluru, India
 Dr. M. Nithyanandan, Environmental Department, La Ala Al Kuwait Real Estate. Co. K.S.C., Kuwait
 Dr. Himender Bharti, Punjabi University, Punjab, India
 Mr. Purnendu Roy, London, UK
 Mr. Saito Motoki, The Butterfly Society of Japan, Tokyo, Japan
 Dr. Sanjay Sondhi, TITLI TRUST, Kalpavriksh, Dehradun, India
 Dr. Nguyen Thi Phuong Lien, Vietnam Academy of Science and Technology, Hanoi, Vietnam
 Dr. Nitin Kulkarni, Tropical Research Institute, Jabalpur, India
 Dr. Robin Wen Jiang Ngiam, National Parks Board, Singapore
 Dr. Lionel Monod, Natural History Museum of Geneva, Genève, Switzerland.
 Dr. Asheesh Shivam, Nehru Gram Bharti University, Allahabad, India
 Dr. Rosana Moreira da Rocha, Universidade Federal do Paraná, Curitiba, Brasil
 Dr. Kurt R. Arnold, North Dakota State University, Saxony, Germany
 Dr. James M. Carpenter, American Museum of Natural History, New York, USA
 Dr. David M. Claborn, Missouri State University, Springfield, USA
 Dr. Kareen Schnabel, Marine Biologist, Wellington, New Zealand
 Dr. Amazonas Chagas Júnior, Universidade Federal de Mato Grosso, Cuiabá, Brasil
 Mr. Monsoon Jyoti Gogoi, Assam University, Silchar, Assam, India
 Dr. Heo Chong Chin, Universiti Teknologi MARA (UiTM), Selangor, Malaysia
 Dr. R.J. Shiel, University of Adelaide, SA 5005, Australia
 Dr. Siddharth Kulkarni, The George Washington University, Washington, USA
 Dr. Priyadarsanan Dharma Rajan, ATREE, Bengaluru, India
 Dr. Phil Alderslade, CSIRO Marine And Atmospheric Research, Hobart, Australia
 Dr. John E.N. Veron, Coral Reef Research, Townsville, Australia
 Dr. Daniel Whitmore, State Museum of Natural History Stuttgart, Rosenstein, Germany.
 Dr. Yu-Feng Hsu, National Taiwan Normal University, Taipei City, Taiwan
 Dr. Keith V. Wolfe, Antioch, California, USA
 Dr. Siddharth Kulkarni, The Hormiga Lab, The George Washington University, Washington, D.C., USA
 Dr. Tomas Ditrich, Faculty of Education, University of South Bohemia in Ceske Budejovice, Czech Republic
 Dr. Mihaly Foldvari, Natural History Museum, University of Oslo, Norway
 Dr. V.P. Uniyal, Wildlife Institute of India, Dehradun, Uttarakhand 248001, India
 Dr. John D. Caleb, Zoological Survey of India, Kolkata, West Bengal, India
 Dr. Priyadarsanan Dharma Rajan, Ashoka Trust for Research in Ecology and the Environment (ATREE), Royal Enclave, Bangalore, Karnataka, India

Fishes

Dr. Topiltzin Contreras MacBeath, Universidad Autónoma del estado de Morelos, México
 Dr. Heok Hee Ng, National University of Singapore, Science Drive, Singapore
 Dr. Rajeev Raghavan, St. Albert's College, Kochi, Kerala, India
 Dr. Robert D. Sluka, Chiltern Gateway Project, A Rocha UK, Southall, Middlesex, UK
 Dr. E. Vivekanandan, Central Marine Fisheries Research Institute, Chennai, India
 Dr. Davor Zanella, University of Zagreb, Zagreb, Croatia
 Dr. A. Biju Kumar, University of Kerala, Thiruvananthapuram, Kerala, India
 Dr. Akhilesh K.V., ICAR-Central Marine Fisheries Research Institute, Mumbai Research Centre, Mumbai, Maharashtra, India
 Dr. J.A. Johnson, Wildlife Institute of India, Dehradun, Uttarakhand, India
 Dr. R. Ravinesh, Gujarat Institute of Desert Ecology, Gujarat, India

Amphibians

Dr. Sushil K. Dutta, Indian Institute of Science, Bengaluru, Karnataka, India
 Dr. Annemarie Ohler, Muséum national d'Histoire naturelle, Paris, France

Reptiles

Dr. Gernot Vogel, Heidelberg, Germany
 Dr. Raju Vyas, Vadodara, Gujarat, India
 Dr. Pritpal S. Soorae, Environment Agency, Abu Dhabi, UAE.
 Prof. Dr. Wayne J. Fuller, Near East University, Mersin, Turkey
 Prof. Chandrashekhar U. Rivonker, Goa University, Taleigao Plateau, Goa. India
 Dr. S.R. Ganesh, Chennai Snake Park, Chennai, Tamil Nadu, India
 Dr. Himansu Sekhar Das, Terrestrial & Marine Biodiversity, Abu Dhabi, UAE

Journal of Threatened Taxa is indexed/abstracted in Bibliography of Systematic Mycology, Biological Abstracts, BIOSIS Previews, CAB Abstracts, EBSCO, Google Scholar, Index Copernicus, Index Fungorum, JournalSeek, National Academy of Agricultural Sciences, NewJour, OCLC WorldCat, SCOPUS, Stanford University Libraries, Virtual Library of Biology, Zoological Records.

NAAS rating (India) 5.64

Birds

Dr. Hem Sagar Baral, Charles Sturt University, NSW Australia
 Mr. H. Byju, Coimbatore, Tamil Nadu, India
 Dr. Chris Bowden, Royal Society for the Protection of Birds, Sandy, UK
 Dr. Priya Davidar, Pondicherry University, Kalapet, Puducherry, India
 Dr. J.W. Duckworth, IUCN SSC, Bath, UK
 Dr. Rajah Jayapal, SAGON, Coimbatore, Tamil Nadu, India
 Dr. Rajiv S. Kalsi, M.L.N. College, Yamuna Nagar, Haryana, India
 Dr. V. Santharam, Rishi Valley Education Centre, Chittoor Dt., Andhra Pradesh, India
 Dr. S. Balachandran, Bombay Natural History Society, Mumbai, India
 Mr. J. Praveen, Bengaluru, India
 Dr. C. Srinivasulu, Osmania University, Hyderabad, India
 Dr. K.S. Gopi Sundar, International Crane Foundation, Baraboo, USA
 Dr. Gombobaatar Sunde, Professor of Ornithology, Ulaanbaatar, Mongolia
 Prof. Reuven Yosef, International Birding & Research Centre, Eilat, Israel
 Dr. Taej Mundkur, Wetlands International, Wageningen, The Netherlands
 Dr. Carol Inskipp, Bishop Auckland Co., Durham, UK
 Dr. Tim Inskipp, Bishop Auckland Co., Durham, UK
 Dr. V. Gokula, National College, Tiruchirappalli, Tamil Nadu, India
 Dr. Arkady Lelej, Russian Academy of Sciences, Vladivostok, Russia
 Dr. Simon Dowell, Science Director, Chester Zoo, UK
 Dr. Mário Gabriel Santiago dos Santos, Universidade de Trás-os-Montes e Alto Douro, Quinta de Prados, Vila Real, Portugal
 Dr. Grant Connette, Smithsonian Institution, Royal, VA, USA
 Dr. P.A. Azeez, Coimbatore, Tamil Nadu, India

Mammals

Dr. Giovanni Amori, CNR - Institute of Ecosystem Studies, Rome, Italy
 Dr. Anwaruddin Chowdhury, Guwahati, India
 Dr. David Mallon, Zoological Society of London, UK
 Dr. Shomita Mukherjee, SAGON, Coimbatore, Tamil Nadu, India
 Dr. Angie Appel, Wild Cat Network, Germany
 Dr. P.O. Nameer, Kerala Agricultural University, Thrissur, Kerala, India
 Dr. Ian Redmond, UNEP Convention on Migratory Species, Lansdown, UK
 Dr. Heidi S. Riddle, Riddle's Elephant and Wildlife Sanctuary, Arkansas, USA
 Dr. Karin Schwartz, George Mason University, Fairfax, Virginia.
 Dr. Lala A.K. Singh, Bhubaneswar, Orissa, India
 Dr. Mewa Singh, Mysore University, Mysore, India
 Dr. Paul Racey, University of Exeter, Devon, UK
 Dr. Honnavalli N. Kumara, SAGON, Anaikatty P.O., Coimbatore, Tamil Nadu, India
 Dr. Nishith Dharaiya, HNG University, Patan, Gujarat, India
 Dr. Spartaco Gippoliti, Socio Onorario Società Italiana per la Storia della Fauna "Giuseppe Altobello", Rome, Italy
 Dr. Justus Joshua, Green Future Foundation, Tiruchirappalli, Tamil Nadu, India
 Dr. H. Raghuram, Sri S. Ramasamy Naidu Memorial College, Virudhunagar, Tamil Nadu, India
 Dr. Paul Bates, Harison Institute, Kent, UK
 Dr. Jim Sanderson, Small Wild Cat Conservation Foundation, Hartford, USA
 Dr. Dan Challender, University of Kent, Canterbury, UK
 Dr. David Mallon, Manchester Metropolitan University, Derbyshire, UK
 Dr. Brian L. Cypher, California State University-Stanislaus, Bakersfield, CA
 Dr. S.S. Talmale, Zoological Survey of India, Pune, Maharashtra, India
 Prof. Karan Bahadur Shah, Budhanilakantha Municipality, Kathmandu, Nepal
 Dr. Susan Cheyne, Borneo Nature Foundation International, Palangkaraja, Indonesia
 Dr. Hemanta Kafley, Wildlife Sciences, Tarleton State University, Texas, USA

Other Disciplines

Dr. Aniruddha Belsare, Columbia MO 65203, USA (Veterinary)
 Dr. Mandar S. Paingankar, University of Pune, Pune, Maharashtra, India (Molecular)
 Dr. Jack Tordoff, Critical Ecosystem Partnership Fund, Arlington, USA (Communities)
 Dr. Ulrike Streicher, University of Oregon, Eugene, USA (Veterinary)
 Dr. Hari Balasubramanian, EcoAdvisors, Nova Scotia, Canada (Communities)
 Dr. Rayanna Hellem Santos Bezerra, Universidade Federal de Sergipe, São Cristóvão, Brazil
 Dr. Jamie R. Wood, Landcare Research, Canterbury, New Zealand
 Dr. Wendy Collinson-Jonker, Endangered Wildlife Trust, Gauteng, South Africa
 Dr. Rajeshkumar G. Jani, Anand Agricultural University, Anand, Gujarat, India
 Dr. O.N. Tiwari, Senior Scientist, ICAR-Indian Agricultural Research Institute (IARI), New Delhi, India
 Dr. L.D. Singla, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India
 Dr. Rupika S. Rajakaruna, University of Peradeniya, Peradeniya, Sri Lanka
 Dr. Bahar Baviskar, Wild-CER, Nagpur, Maharashtra 440013, India

Reviewers 2021–2023

Due to pausity of space, the list of reviewers for 2021–2023 is available online.

The opinions expressed by the authors do not reflect the views of the Journal of Threatened Taxa, Wildlife Information Liaison Development Society, Zoo Outreach Organization, or any of the partners. The journal, the publisher, the host, and the partners are not responsible for the accuracy of the political boundaries shown in the maps by the authors.

Print copies of the Journal are available at cost. Write to:
 The Managing Editor, JoTT,
 c/o Wildlife Information Liaison Development Society,
 3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore,
 Tamil Nadu 641006, India
 ravi@threatenedtaxa.org & ravi@zooreach.org



OPEN ACCESS



The Journal of Threatened Taxa (JoTT) is dedicated to building evidence for conservation globally by publishing peer-reviewed articles online every month at a reasonably rapid rate at www.threatenedtaxa.org. All articles published in JoTT are registered under [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) unless otherwise mentioned. JoTT allows unrestricted use, reproduction, and distribution of articles in any medium by providing adequate credit to the author(s) and the source of publication.

ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

November 2025 | Vol. 17 | No. 11 | Pages: 27787–28010

Date of Publication: 26 November 2025 (Online & Print)

DOI: 10.11609/jott.2025.17.11.27787-28010

www.threatenedtaxa.org

Articles

Morpho-taxonomic studies on the genus *Fissidens* Hedw. (Bryophyta: Fissidentaceae) in Senapati District, Manipur, India

– Kholi Kaini & Kazhuhrii Eshuo, Pp. 27787–27796

Ecology and conservation concerns of *Indianthus virgatus* (Marantaceae): an endemic species of the Western Ghats–Sri Lanka Biodiversity Hotspot

– Shreekara Bhat Vishnu, Vivek Pandi, Bhathiya Gopallawa, Rajendiran Gayathri, B. Mahim, Deepthi Yakandawala & Annamalai Muthusamy, Pp. 27797–2805

An updated floral diversity of Tal Chhapar Wildlife Sanctuary, Rajasthan, India

– Sneha Singh & Orus Ilyas, Pp. 27806–27821

An updated checklist of the family Rosaceae in Arunachal Pradesh, India

– Pinaki Adhikary & P.R. Gajurel, Pp. 27822–27841

Restoring biodiversity: case studies from two sacred groves of Kozhikode District, Kerala, India

– K. Kishore Kumar, Pp. 27842–27853

A preliminary investigation on wing morphology, flight patterns, and flight heights of selected odonates

– Ananditha Pascal & Chelmala Srinivasulu, Pp. 27854–27862

Phylogenetic confirmation of generic allocation and specific distinction of Mawphlang Golden-cheeked Frog *Odorrana mawphlangensis* (Pillai & Chanda, 1977) (Amphibia: Anura: Ranidae) and its updated distribution records

– Angshuman Das Tariang, Mathipi Vabeiryureilai, Fanai Malsawmdawngliana & Hmar Tlawmte Lalremsanga, Pp. 27863–27873

Phenotypic and genotypic variability in the Snowtrout *Schizothorax richardsonii* (Cypriniformes: Cyprinidae) wild populations from central Himalayan tributaries of the Ganga River basin

– Yasmeen Kousar, Mahender Singh & Deepak Singh, Pp. 27874–27888

Avian composition and distribution in the bird sanctuary planning zone of Can Gio Mangrove Biosphere Reserve, Ho Chi Minh City, Vietnam

– Huynh Duc Hieu, Huynh Duc Hoan, Bui Nguyen The Kiet, Dang Ngoc Hiep, Nguyen Thi Phuong Linh & Nguyen Dang Hoang Vu, Pp. 27889–27896

Bat echolocation in South Asia

– Aditya Srinivasulu, Chelmala Srinivasulu, Bhargavi Srinivasulu, Deepa Senapathi & Manuela González-Suárez, Pp. 27897–27931

A checklist of the mammals of Jammu & Kashmir, India

– Muzaffar A. Kichloo, Ajaz Ansari, Khurshed Ahmad & Neeraj Sharma, Pp. 27932–27945

Communications

Notes on distribution, identification and typification of the Elongated Sweet Grass *Anthoxanthum hookeri* (Aveneae: Poaceae) with comparative notes on *A. borii*

– Manoj Chandran, Kuntal Saha, Ranjana Negi & Saurabh Guleri, Pp. 27946–27953

Conservation significance of Yelakundli Sacred Grove: a relic population of the endemic dipterocarp *Vateria indica* L.

– G. Ramachandra Rao, Pp. 27954–27959

A preliminary study of fish diversity in Sirum River of East Siang District, Arunachal Pradesh, India

– Obinam Tayeng, Leki Wangchu & Debangshu Narayan Das, Pp. 27960–27969

Preliminary investigation on morphometrics and habitat of the Indian Flapshell Turtle *Lissemys punctata* (Bonnaterre, 1789) (Reptilia: Trionychidae) in rural wetlands of Alappuzha, Kerala, India

– Sajan Sunny, Appiyathu Saraswathy Vijayasree, Nisha Thomas Panikkaveetil & E. Sherly Williams, Pp. 27970–27975

A preliminary assessment of avifaunal diversity in Parwati Arga Bird Sanctuary, Uttar Pradesh, India

– Yashmita-Ulman & Manoj Singh, Pp. 27976–27984

Sightings of the Rusty-spotted Cat *Prionailurus rubiginosus* (I. Geoffroy Saint-Hilaire, 1831) (Mammalia: Carnivora: Felidae) in Saurashtra Peninsula, Gujarat, India

– Raju Vyas, Pranav Vaghshiya & Devendra Chauhan, Pp. 27985–27991

Short Communications

Abundance and distribution of the Critically Endangered Giant Staghorn Fern *Platyserium grande* (A.Cunn. ex Hook.) J.Sm. in Maguindanao del Sur, BARMM, Philippines

– Marylene M. Demapitan, Roxane B. Sombero, Datu Muhaymin C. Abo, Nof A. Balabagan & Cherie Cano-Mangaoang, Pp. 27992–27996

***Bonnaya gracilis* a novel find for the flora of Uttarakhand, India**

– Monal R. Jadhav, Revan Y. Chaudhari & Tanveer A. Khan, Pp. 27997–28000

Notes

Crab eating crab: first record of the Horn-eyed Ghost Crab *Ocypode brevicornis* preying on the Mottled Light-footed Crab *Grapsus albolineatus* in Visakhapatnam, India

– Harish Prakash, M.K. Abhisree & Rohan Kumar, Pp. 28001–28003

First record of Greater Scaup *Aythya marila* in Farakka IBA near West Bengal & Jharkhand border, India

– Subhro Paul, Sudip Ghosh & J. Jiju Jaesper, Pp. 28004–28006

Filling the gap: first regional record of the Little Owl *Athene noctua ludlowi* (Strigiformes: Strigidae) from Uttarakhand, India

– Anuj Joshi, Dhanesh Ponnuru, Vineet K. Dubey & Sambandam Sathyakumar, Pp. 28007–28010

Publisher & Host



Threatened Taxa