ZOO'S PRINT

Communicating Science for Conservation

Magazine of Zoo Outreach Organization
www.zoosprint.zooreach.org

ISSN 0971-6378 (Print); 0973-2543 (Online)
Vol. XXXVII, No. 4, April 2022

ZOO'S PRINT

Communicating science for conservation

Vol. XXXVII, No. 4, April 2022 ISSN 0971-6378 (Print); 0973-2543 (Online)

Contents

Cover photo: Probably *Technomyrmex* sp., 2nd Winner, Instagram Photo contest: Plant-Animal Interaction. ©K. Sadheeskumar

ISSN 2230-7052
BugsKAL
#237
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Preliminary report on the butterfly diversity of a suburb area in Kozhikode district, Kerala, India

Chevarambalam is a suburb of Kozhikode district which is 7 km far from the City. The area of study is situated at an elevation of 23 m and between 11.284^0 N, 75.811^0 E. The major vegetation type in this area are shrubs, herbs, home garden, plantation and most observed plants are *Clerodendrum paniculatum, Passiflora edulis, Musa acuminate, Citrus limon*, and *Ixora coccinea.*

Location map of Chevarambalam, Kozhikode District, Kerala, India.

The average rainfall of the area during the six month study period was 492.33mm (19.383 inches). The temperature during the study period ranges from a minimum of 22.8–25.1^{0}C and a maximum of 27.9–32.8^{0}C with a relative humidity of 74–90%. The Shrubbery area was selected for the survey of the butterfly population. The site was under observation from April to September 2020.

The line transect count method was adopted to estimate the butterfly abundance of the selected study area (Kunte 2000). The count was performed with individual species in 2.5 m left and right side and 5 m front and above the observer. The butterflies observed in the transect were recorded regularly at an interval of seven days for six months (April–September 2020). The observation was recorded twice a day, 08:00–11:00h and 15:00–17:00h.

The survey was only performed during suitable weather conditions, mostly in the absence of rain or strong wind. Identification

ISSN 2230-7052
BugsEAL
#237
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

of butterflies was conducted on the site with the help of field guides (Palot et al. 2003; Kasambe 2018). For the documentation of the data on butterfly diversity and abundance, individual butterfly species from the site were photographed using a digital (SONY HDR-CX190E) camera. The identified butterflies were classified into five categories based on their abundance as VC–Very Common (>100 sightings), C–Common (51–100 sightings), O–Occasional (16–50 sightings), R–Rare (3–15 sightings). VR–Very Rare (1–2 sightings).

In the present study, the diversity and abundance of butterfly population from the suburb area, (Chevarambalam) of Kozhikode district of Kerala were observed and recorded (Table 1). During the study period, 52 species of butterflies representing five families and 40 genera have been recorded. The relative abundance of butterflies was examined and it was observed that among the five families, Nymphalidae was the dominant family constituting 19 genera (47.5%) with 25 species (48.08%) followed by Hesperiidae comprising seven genera (17.5%) and seven species (13.46%), Lycaenidae; six genera (15%) with six species (11.54%), Papilionidae; four genera (10%) with ten species (19.23%) and Pieridae with four genera (10%) and four species (7.69%), respectively.

Out of 52 species recorded, 11 species are very common (21.15%), 5 species are common (9.62%), 10 species are occasional (19.23%), 13 species are rare (25%), and 13 species are very rare (25%). The results revealed that the common species of butterfly population are Common Mormon (*Papilio polytes*) out of all forms *cyrus* is the most abundant form, Chocolate Pansy (*Junonia iphita*), Common Crow (*Euploea core*), Blue Tiger (*Tirumala limniace*), Psyche (*Leptosia nina*) and Common Grass Yellow (*Eurema hecabe*).

Further, the study also documented that among the 52 species, three species namely Malabar Banded Swallowtail, Malabar Banded Peacock (*Papilio liomedon*), Southern Birdwing (*Troides minos*) is endemic to the Western Ghats. Two species namely Glad-eye Bush Brown (*Mycalesis patnia*) and Tamil Yeoman (*Cirrochroa thais*) are endemic to the Western Ghats and Srilanka. The flight period of *Papilio liomedon* was observed during May and *Papilio buddha* during August and May.

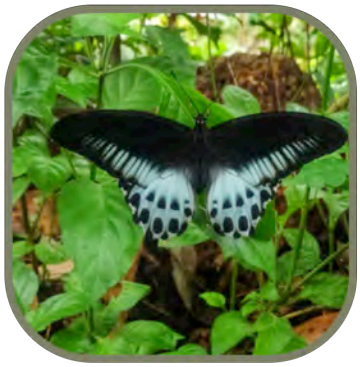
The present investigation is the first attempt to explore the butterfly diversity within the suburb region of Kozhikode City. The study area supports a reasonably good number of butterfly species that obviously supports

ISSN 2230-7052

Bugs ALL

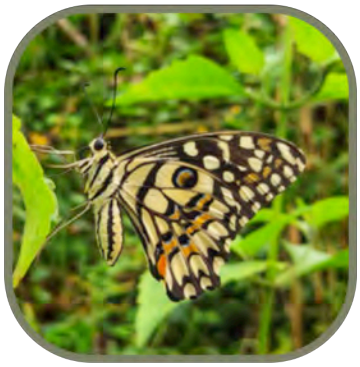
#237
21 April 2022

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

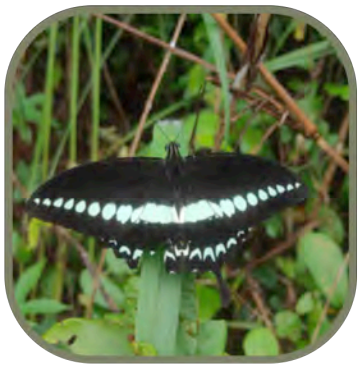


Papilio polymnestor
Blue Mormon

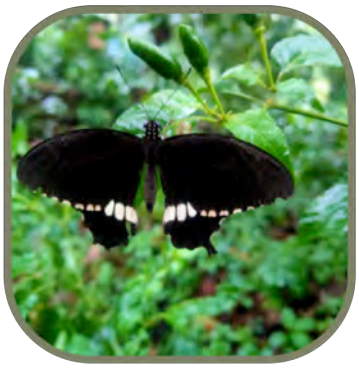
Pachliopta hector
Crimson Rose



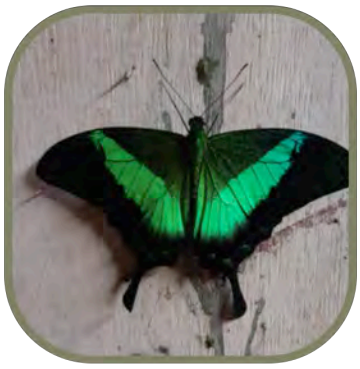
Papilio demoleus
Lime Butterfly



Papilio liomedon
Malabar Banded Swallowtail

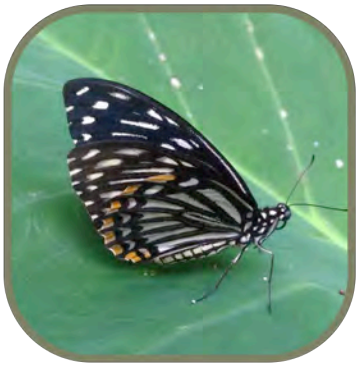


Papilio polytes
Common Mormon



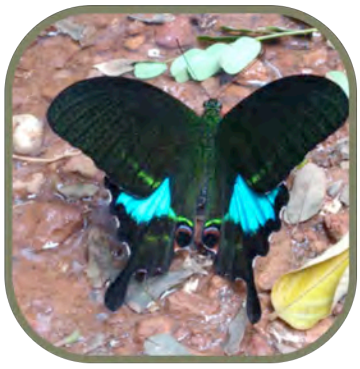
Papilio buddha
Malabar Banded Peacock

Troides minos
Southern Birdwing



Papilio clytia
Common Mime

Graphium teredon
Southern Bluebottle



Papilio paris
Paris Peacock

Parthenos sylvia
Clipper

Neptis hylas
Common Sailer

ISSN 2230-7052

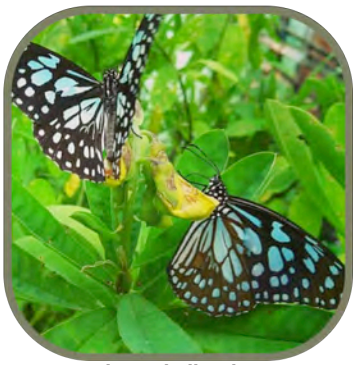
Bugs ALL

#237
21 April 2022

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Acraea terpsicore
Tawny Coster

Ariadne ariadne
Angled Castor



Tirumala limniace
Blue Tiger

Parantica aglea
Glassy Tiger

Cirrochroa thais
Tamil Yeoman

Cynitia lepidea
Grey Count

Euploea core
Common Crow

Pantoporia hordonia
Common Lascar

Moduza procris
Commander

Elymnias caudata
Tailed Palmfly

Cupha erymanthis
Rustic

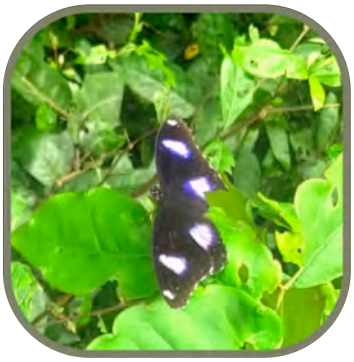
Orsotriaena medus
Medus Brown

ISSN 2230-7052

Bugs ALL

#237
21 April 2022

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)



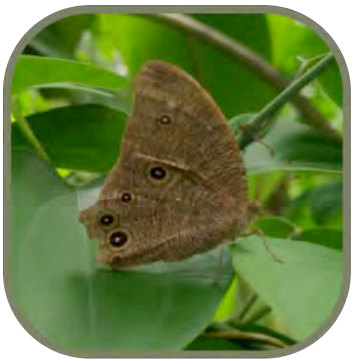
Hypolimnas misippus
Danaid Eggfly

Ypthima baldus
Common Fivering

Ypthima huebneri
Common Fourring

Mycalesis perseus
Common Bushbrown

Mycalesis patina
Glad-eye Bushbrown



Melanitis leda
Common Evening Brown

Melanitis phedima
Dark Evening Brown

Junonia lemonias
Lemon Pansy

Junonia iphita
Chocolate Pansy

Junonia almana
Peacock Pansy

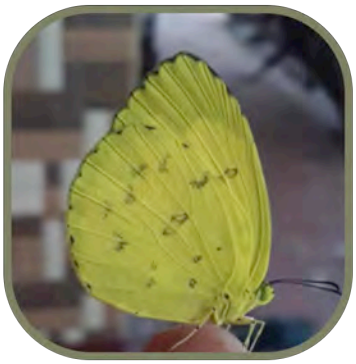
Junonia atlites
Gray Pansy

Leptosia nina
Psyche

ISSN 2230-7052

Bugs ALL

#237
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)



Eurema hecabe
Common Grass Yellow

Delias eucharis
Common Jezebel

Catopsilia Pomona
Common Emigrant

Castalius rosimon
Common Pierrot

Jamides celeno
Common Cerulean

Talicada nyseus
Red Pierrot

Loxura atymnus
Yamfly

Chilades pandava
Plains Cupid

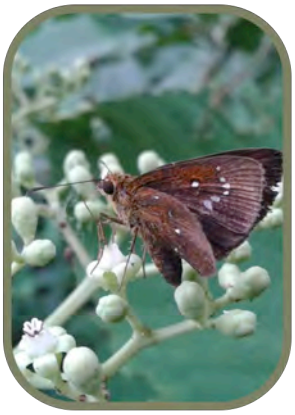
Rathinda amor
Monkey Puzzle

Sarangesa dasahara
Common Small Flat

Tagiades litigiosa
Water Snow Flat

Udaspes folus
Grass Demon

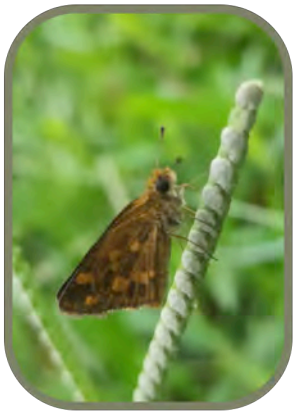
ISSN 2230-7052
BugsALL
#237
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)



Iambrix salsala
Chestnut Bob

Telicota bambusae
Dark Palm Dart

Pelopidas mathias
Small Branded Swift



Taractrocera ceramas
Tamil Grass Dart

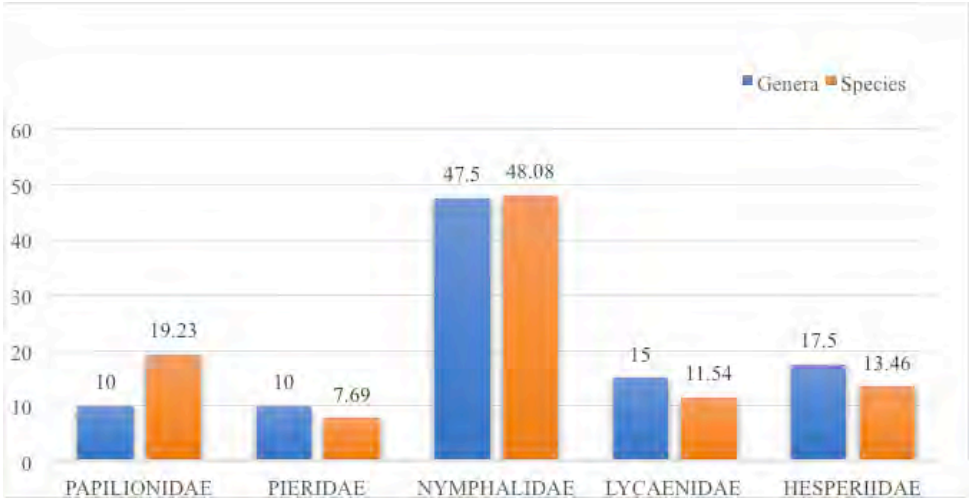
Table 1. Checklist of butterflies of Chevarambalam, Kozhikode, Kerala

S	Scientific Name	Common Name	Family	Status
1	*Papilio polymnestor*	Blue Mormon	Papilionidae	C
2	*Pachliopta hector*	Crimson Rose	Papilionidae	R
3	*Papilio demoleus*	Lime Butterfly	Papilionidae	O
4	*Papiliolio liomedon*	Malabar Banded Swallowtail**	Papilionidae	VR
5	*Papilio polytes*	Common Mormon	Papilionidae	VC
6	*Papilio buddha*	Malabar Banded Peacock**	Papilionidae	R
7	*Troides minos*	Southern Birdwing**	Papilionidae	R
8	*Papilio clytia*	Common Mime	Papilionidae	VR
9	*Graphium teredon*	Southern Bluebottle	Papilionidae	R
10	*Papilio paris*	Paris Peacock	Papilionidae	VR
11	*Parthenos sylvia*	Clipper	Nymphalidae	VR
12	*Neptis hylas*	Common Sailer	Nymphalidae	VC
13	*Acraea terpsicore*	Tawny Coster	Nymphalidae	VC
14	*Ariadne ariadne*	Angled Castor	Nymphalidae	C
15	*Tirumala limniace*	Blue Tiger	Nymphalidae	VC
16	*Parantica aglea*	Glassy Tiger	Nymphalidae	R
17	*Cirrochroa thais*	Tamil Yeoman***	Nymphalidae	VR
18	*Cynitia lepidea*	Grey Count	Nymphalidae	R
19	*Euploea core*	Common Crow	Nymphalidae	VC
20	*Pantoporia hordonia*	Common Lascar	Nymphalidae	VR
21	*Moduza procris*	Commander	Nymphalidae	VR
22	*Elymnias caudata*	Tailed Palmfly	Nymphalidae	O
23	*Cupha erymanthis*	Rustic	Nymphalidae	VR
24	*Orsotriaena medus*	Medus Brown	Nymphalidae	O
25	*Hypolimnas misippus*	Danaid Eggfly	Nymphalidae	R
26	*Ypthima baldus*	Common Fivering	Nymphalidae	O

ISSN 2230-7052
Bugs R AL
#237
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

27	*Ypthima huebneri*	Common Fourring	Nymphalidae	O
28	*Mycalesis perseus*	Common Bushbrown	Nymphalidae	C
29	*Mycalesis patnia*	Glad-eye Bushbrown***	Nymphalidae	VR
30	*Melanitis leda*	Common Evening Brown	Nymphalidae	O
31	*Melanitis phedima*	Dark Evening Brown	Nymphalidae	R
32	*Junonia lemonias*	Lemon Pansy	Nymphalidae	O
33	*Junonia iphita*	Chocolate Pansy	Nymphalidae	VC
34	*Junonia almana*	Peacock Pansy	Nymphalidae	R
35	*Junonia atlites*	Gray Pansy	Nymphalidae	C
36	*Leptosia nina*	Psyche	Pieridae	VC
37	*Eurema hecabe*	Common Grass Yellow	Pieridae	VC
38	*Catopsilia pomona*	Common Emigrant	Pieridae	VC
39	*Delias eucharis*	Common Jezebel	Pieridae	O
40	*Castalius rosimon*	Common Pierrot	Lycaenidae	O
41	*Jamides celeno*	Common Cerulean	Lycaenidae	VC
42	*Talicada nyseus*	Red Pierrot	Lycaenidae	R
43	*Loxura atymnus*	Yamfly	Lycaenidae	VR
44	*Chilades pandava*	Plains Cupid	Lycaenidae	R
45	*Rathinda amor*	Monkey Puzzle	Lycaenidae	R
46	*Sarangesa dasahara*	Common Small Flat	Hesperiidae	VC
47	*Tagiades litigiosa*	Water Snow Flat	Hesperiidae	R
48	*Udaspes folus*	Grass Demon	Hesperiidae	O
49	*Iambrix salsala*	Chestnut Bob	Hesperiidae	C
50	*Telicota bambusae*	Dark Palm Dart	Hesperiidae	VR
51	*Pelopidas mathias*	Small Branded Swift	Hesperiidae	VR
52	*Taractrocera ceramas*	Tamil Grass Dart	Hesperiidae	VR

—Endemic to Western Ghats | *—Endemic to Western Ghats & Srilanka |
VC—Very Common | C—Common | O—Occasional | R—Rare | VR—Very Rare.



Relative abundance of butterfly genera and species at Chevarambalam, Kozhikode, Kerala.

ISSN 2230-7052
Bugs R All
#237
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

to be an indicator of the urban biodiversity. However, most of the greenery areas of the selected sites remain unexplored. Hence, proper conservation of natural resources may help survive the butterfly species.

The present checklist of butterflies is not final, and future exploration needs to update the checklist. The preliminary survey's outcome forms a basis for future studies on the documentation of butterfly assemblages of Kerala's urban regions, which may support the conservation of butterflies in Kerala.

C.T. Abharish[1] & E.M. Manogem[2]
[1,2]Department of Zoology, University of Calicut, Kerala 673635, India.
[1]abharishct@gmail.com, [2]manogemvinod@gmail.com (corresponding author).

Citation: Abharish, C.T. & E.M. Manogem (2022). Preliminary report on the butterfly diversity of a suburb area in Kozhikode district, Kerala, India. Bugs R All #237, In: *Zoo's Print* 37(4): 01–09.

References

Kasambe, R. (2018). *Butterflies of Western Ghats*. *Second Edition*. Published by author, 372 pp.

Kunte, K. (2000). *Butterflies of Peninsular India*. Universities Press (Hyderabad) and Indian Academy of Sciences (Bengaluru), 270 pp.

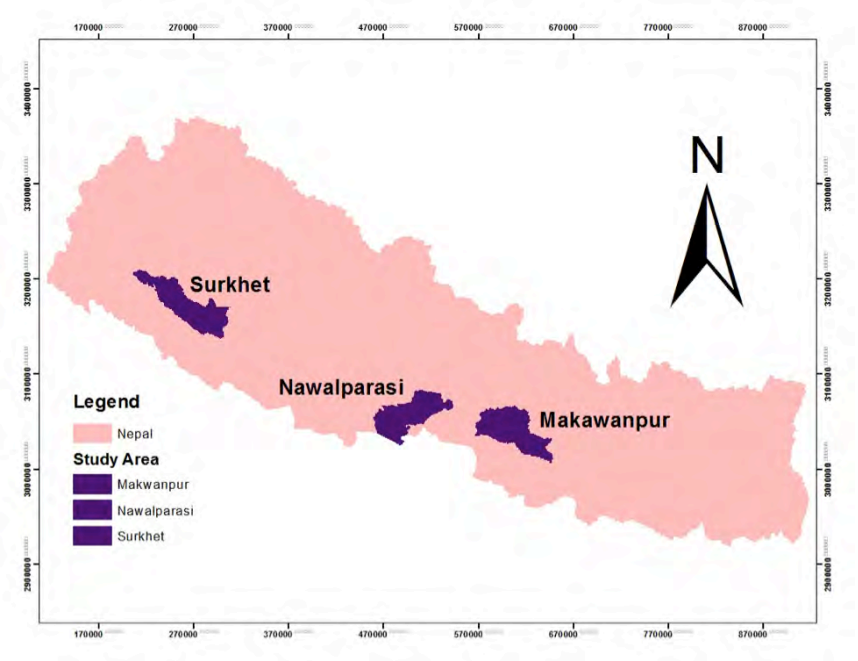
Palot, M.J., V.C. Balakrishnan & B. Kambrath (2003). *Keralathile Chithrasalabhangal*. Malabar Natural History Society, Calicut, Kerala 204 pp.

Bugs R All is a newsletter of the Invertebrate Conservation and Information Network of South Asia (ICINSA) published with the financial support of Zoological Society of London.
For communication, Email: zp@zooreach.org

ISSN 2230-7052
BugsEAL
#238
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

New additions to the Nepalese spider checklist

Spiders are one of the most diverse terrestrial predators in the world. Globally, over 48,000 species are described (WSC 2021) of which 276 species of 106 genera in 24 families are so far reported from Nepal (Magar et al. 2020; WSC 2021).



The present study was conducted in western, central, & Terai regions of Nepal. The study was conducted in five different locations in three districts (Table 1) during 2018–2020. Most of the study sites fall under tropical climate zone.

Live specimens were photographed using a Nikon D5300 DSLR camera. Spiders were collected and preserved in 70% alcohol. Adult specimens were identified up to species level with the help of available taxonomic literature and keys as well as general morphological illustration papers (Tikader & Malhotra 1980; Tikader 1982; Pocock 1901; Gravely 1921, 1924; Proszynski & Caleb 2015; Caleb 2020a,b). The nomenclature follows the World Spider Catalog (2021). Specimens are deposited in biology lab of Siddhartha Secondary School, Nawalparasi.

A total of 16 genera and 20 species belonging to six families (Table 2) were recorded of which 18 species belonging to 14 genera are new for Nepal. *Phintella vittata* and *Telamonia dimidiata* are reported from new localities (Magar et al. 2020). Araneidae was the dominant family constituting nine species under eight genera and followed by Oxyopidae with five species under two genera. Similarly,

ISSN 2230-7052
#238
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

guild structure analysis revealed four feeding guilds: orb-web weavers, stalkers, ground runners, and foliage runners (Table 2) (Uetz et al. 1999).

In Nepal, the Terai and the western regions are underexplored. Literally there is a no evidence of presence of families Araneidae, Oxyopidae, and Tetragnathidae from Nepal. Except for *Phintella vittata* and *Telamonia dimidiata* all other species are recorded for the first time from Nepal.

This new records of species adds their gap of global distribution. Records of new species are not surprising in Nepal as they are reported from neighboring countries. However, this is not final as there are many species which still await to be discovered.

Family Araneidae Clerck

1. ***Argiope aemula* (Walckenaer, 1841):** 4♀, Locality: C, Habitat: web created in bushes, coll. BRO.
2. ***Argiope anasuja* Thorell, 1887:** 6♀, Locality: A, B, C, Habitat: paddy plants, web in forest, coll. MS.
3. ***Cyrtophora moluccensis* Doleschall, 1857:** 3♀, Locality: C, Habitat: branch of tree, coll. BRO.
4. ***Macracantha hasselti* (C.L. Koch, 1837):** 6♀, Locality: B, C, Habitat: web in forest, high density, coll. MS.
5. ***Gea spinipes* C.L. Koch, 1843:** 1♀, Locality: B, Habitat: leaf of sal tree (*Shorea robusta*), coll. MS.
6. ***Herennia multipuncta* (Doleschall, 1859):** 1♀, Locality: E, Habitat: bark of tree, camouflage, coll. MS.
7. ***Nephila pilipes* (Fabricius, 1793):** 9♀, Locality: B, C, D, E, Habitat: web created in bushes, coll. MS.
8. ***Parawixia dehaani* (Doleschall, 1859):** 1♀, Locality: B, Habitat: web created in sal forest, on ground under fallen dry leaves, coll. MS.
9. ***Trichonephila clavata* (L. Koch, 1878):** 1♂,1♀, Locality: E, Habitat: web created in Kuro plant (*Cyathula capitata*), coll. MS.

Family Lycosidae

1. ***Hippasa agelenoides* (Simon, 1884):** 2♀, Locality: C, Habitat: web created in open grassland, coll. BRO.

Family Oxyopidae

1. ***Oxyopes birmanicus* Thorell, 1887:** 15♀, Locality: A, Habitat: leaf of rice plant in agricultural field, coll. MS.
2. ***Oxyopes javanus* Thorell, 1887:** 10♀, Locality: A, Habitat: leaf of rice plant in agricultural field, coll. MS.
3. ***Oxyopes shweta* Tikader, 1970:** 10♀, locality: A, B, Habitat: leaf of Neem tree, Sal tree, coll. MS.

ISSN 2230-7052
BugsRAL
#238
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Table 1. Details of the study localities.

	Locality	Code	Habitat
1.	Nawalparasi West District, Nepal		
a.	Swathi (27.650 N & 83.657 E, 132 m)	A	Agricultural field, paddy field
b.	Ramapur (27.623 N & 83.613 E, 148 m)	B	Forest, dominant Sal tree
2.	Surkhet District, Nepal		
a.	Kakrebihar Forest (28.564 N & 81.621 E, 728 m)	C	Forest
b.	Satakhani (28.496 N & 81.747 E, 485 m)	D	Forest
3.	Makwanpur District, Nepal		
a.	Kulekhani (27.623 N & 85.147 E, 1,528 m)	E	Watershed area, shrubs

Table 2. List of spider species recorded in study areas.

	Families/Guild	No. of genera	No. of species	Species
1.	Araneidae (Orb-web Builders)	8	9	*Argiope aemula, A. anasuja, Cyrtophora moluccensis, Macracantha hasselti, Gea spinipes, Herennia multipuncta, Nephila pilipes, Parawixia dehaani, Trichonephila clavata*
2.	Lycosidae (Ground Runners)	1	1	*Hippasa agelenoides*
3.	Oxyopidae (Stalkers)	2	5	*Oxyopes birmanicus, O. javanus, O. shweta, O. sunandae, Peucetia viridana*
4.	Salticidae (Stalkers)	3	3	*Phintella vittata*, Telamonia dimidiata*, Thiania bhamoensis,*
5.	Sparassidae (Foliage Runner)	1	1	*Olios milleti*
6.	Tetragnathidae (Orb-web Builders)	1	1	*Leucauge decorata*
Total		**16**	**20**	**18 species new for Nepal**
Note: * indicate new distributional records within country				

4. ***Oxyopes sunandae* Tikader, 1970:** 4♂, 8♀, Locality: A, Habitat: leaf of rice plant, coll. MS.
5. ***Peucetia viridana* (Stoliczka, 1869):** 5♂, Locality: B, Habitat: leaf of plant in forest, coll. MS.

Family Salticidae Blackwall

1. ***Phintella vittata* (C.L. Koch, 1846):** 6♂, Locality: B, Habitat: leaf of sal tree in forest, coll. MS.
   National distribution: Chitwan National Park (Magar et al. 2020) and this paper.

ISSN 2230-7052

Bugs R ALL

#238
21 April 2022

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Argiope anasuja

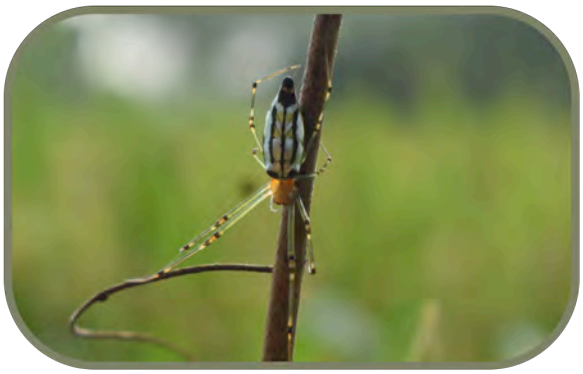
Cyrtophora moluccensis

Macracantha hasselti

Gea spinipes

Nephila pilipes

Parawixia dehaani



Leucauge decorata

Trichonephila clavata

ISSN 2230-7052

Bugs ALL

#238
21 April 2022

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Hippasa agelenoides

Oxyopes birmanicus

Oxyopes shweta

Oxyopes sunandae

Phintella vittata

Telamonia dimidiata

Thiania bhamoensis

Olios milleti

ISSN 2230-7052
Bugs R All
#238
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

2. ***Telamonia dimidiata* (Simon, 1899):** 8♀, Locality: B, Habitat: leaf of sal tree in forest, coll. MS.
   National distribution: Chitwan National Park (Magar et al. 2020) and this paper.
3. ***Thiania bhamoensis* Thorell, 1887:** 2♀, Locality: B, Habitat: leaf of sal tree in forest, coll. MS.

Family Sparassidae Bertkau

1. ***Olios milleti* (Pocock, 1901):** 1♀, Locality: A, Habitat: leaf of plant, coll. BRO.

Family Tetragnathidae

***Leucauge decorata* (Walckenaer, 1842):** 20♀, Locality: A, B, C, Habitat: leaf of paddy plants, web created in bushes, coll. MS.

References

Caleb, J.T.D. (2020a). Spiders (Arachnida: Araneae) from vicinity of Araabath Lake, Chennai, India. *Journal of Threatened Taxa* 12(1): 15186–15193. https://doi.org/10.11609/jott.5393.12.1.15186-15193

Caleb, J.T.D. (2020b). Spiders (Arachnida: Araneae) fauna of the scrub jungle in the Madras Christian College campus, Chennai, India. *Journal of Threatened Taxa* 12(7): 15711–15766. https://doi.org/10.11609/jott.5758.12.7.15711-15766

Gravely, F.H. (1921). Some Indian spiders of the subfamily Tetragnathinae. *Records of the Indian Museum, Calcutta* 22: 423–459.

Gravely, F.H. (1924). Some Indian spiders of the family Lycosidae. *Records of the Indian Museum, Calcutta* 26: 587–613.

Magar, K.T., B.R. Shrestha, T.B. Gurung, K.C.R. Bahadur, B.R. Lamichhane, D.E. Hill & A. Thapa (2020). New records of jumping spiders (Araneae: Salticidae) from Nepal. *Peckhamia* 220.1: 1–11.

Pocock, R.I. (1901). Descriptions of some new species of spiders from British India. *Journal of the Bombay Natural History Society* 13: 478–498.

Proszynski, J. & J.T.D. Caleb (2015). Key to identification of Salticidae (Araneae) of the Indian Subcontinent. https://salticidae.pl/ (accessed on 10 April 2022).

Tikader, B.K. (1982). Family Araneidae (Argiopidae) typical orb weavers. Fauna of India (Araneae). *Zoological Survey of India, Calcutta* 2: 1–293.

Tikader, B.K. & M.S. Malhotra (1980). Lycosidae (Wolf-spiders). Fauna of India (Araneae). *Zoological Survey of India, Calcutta* 1: 248–447.

Uetz, G.W., J. Halaj & A.B. Cady (1999). Guilt structure of spiders in major crops. *Journal of Arachnology* 27: 270–280.

WSC (2021). World Spider Catalog. Version 21.5, Natural History Museum Bern. http://wsc.nmbe.ch. Accessed 18.xi.2021. https://doi.org/10.24436/2..

Manoj Sharma[1] & Buddhi Ram Oli[2]
[1& 2] Central Department of Zoology, Tribhuvan University, Kirtipur, Kathmandu, Nepal.
Email: [1]munu.nepal50@gmail.com (corresponding author), [2]buddhiramoli.2049@gmail.com.

Citation: Sharma, M. & B.R. Oli. (2022). New additions to the Nepalese spider checklist. Bugs R All #238, In: *Zoo's Print* 37(4): 10–15.

Bugs R All is a newsletter of the Invertebrate Conservation and Information Network of South Asia (ICINSA) published with the financial support of Zoological Society of London.
For communication, Email: zp@zooreach.org

ISSN 2230-7052
Bugs R All
#239
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Record of Black Rajah from Lumbini, Nepal

The genus, *Charaxes* is moderately diverse group of the brush-footed butterfly family (Nymphalidae). They are found in the Mediterranean, Africa, southern & southeastern Asia, and Indo-Australian region. The powerful rapid flight is their most striking feature (Rothschild & Jordan 1899). Black Rajah *Charaxes solon* Fabricus, 1793 is a charismatic tropical butterfly with 17 subspecies; three subspecies are found in the Indian subcontinent, viz: *C. s. cerynthus* Fruhstorfer, 1914, *C. s. solon* Fabricius, 1793, and *C. s. sulphureus* Rothschild, 1900 (Toussaint et al. 2019). Among Asian *Charaxes*, it is a rare species from an African lineage (Müller et al. 2010; Toussaint et al. 2019).

***Charaxes solon* recorded from Lumbini, Nepal. © Bibek Gyawali.**

In Nepal, the distribution of *C. s. solon* is not well known. Two individuals were recorded from eastern Nepal in 1979 (Smith 1989), one from Kanchanpur west in 2019, and the fourth record reported from Dhankuta (Sajan 2021). An individual of *C. s.solon* was sighted on 19 July 2021 from Lumbini at 150 m msl near Mayadevi Temple (27.470 N, 83.275 E), Rupandehi District, during a butterfly survey. Lumbini Development Trust area is a sacred garden rich in flora

ISSN 2230-7052
Bugs R All
#239
21 April 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

and fauna. Around 305 plant species are found in the area (Siwakoti 2008). *Dalbergia* sissoo, *Tamarindus indica*, and *Pithecellobium dulce* are some of the host plant species found around.

The species was feeding on the scat. It was initially confused for *Polyura dolon* but later identified as *Charaxes solon*. It sucked up for five minutes and flew away. The photograph of feeding individual was identified with the help of literature (Bhakare & Ogale 2018).

C.s. solon had silvery grey on the underside, with a pale discal band and a few obscure markings. There were wavy black lines and a few basal black spots. Both wings had a series of yellow sub-marginal spots. The upper side was black with yellowish-white discal band that curves towards the apex. Males and females have similar appearances, but females are longer tailed (Bhakare & Ogale 2018).

References

Bhakare, M. & H. Ogale (2018). *A Guide to Butterflies of Western Ghats (India) includes Butterflies of Kerala, Tamilnadu, Karnataka, Goa, Maharashtra and Gujarat state.* Milind Bhakare (privately published), X+496 pp.

Müller, C.J., N. Wahlberg & L.B. Beheregaray (2010). 'After Africa': the evolutionary history and systematics of the genus *Charaxes Ochsenheimer* (Lepidoptera: Nymphalidae) in the Indo-Pacific region. *Biological Journal of the Linnean Society* 100: 457–481.

Rothschild, W. & K. Jordan (1899). "A monograph of Charaxes and the allied prionopterous genera". *Novitates Zoologicae* 6(2): 220–286.

Sajan, K.C. (2021). Some important records of butterflies from Dhankuta and Sunsari, Nepal. *Bionotes* 23(2):111–116.

Siwakoti, M. (2008). A Checklist of Angiospermic Flora in and around the Lumbini Sacred Garden, Nepal. *Journal of Nature History Museum* 23: 27–44.

Toussaint, E.F., B. Turlin & M. Balke (2019). Biogeographical, molecular and morphological evidence unveils cryptic diversity in the Oriental Black Rajah *Charaxes solon* (Fabricius, 1793) (Lepidoptera: Nymphalidae: Charaxinae). *Biological Journal of the Linnean Society* 126(1): 114–130.

Bibek Gyawali
Institute of Forestry, Tribhuvan University, Pokhara, Nepal.
bibekgyawali79@gmail.com.

Citation: Gyawali, B. (2022) Record of Black Rajah from Lumbini, Nepal. Bugs R All #239, In: *Zoo's Print* 37(4): 16–17.

Bugs R All is a newsletter of the Invertebrate Conservation and Information Network of South Asia (ICINSA) published with the financial support of Zoological Society of London.
For communication, Email: zp@zooreach.org

Recent sighting report on Common Merganser after a century in Chhattisgarh, India

The Common Merganser or Goosander *Mergus merganser* breeds in Ladakh at elevation 3,000–4,000 m and is chiefly a winter visitor commonly found in the eastern Himalayan foot hills. Few occurrence records are from Uttar Pradesh, Maharashtra (Mumbai), Madhya Pradesh (Raipur District), vagrant further south, locally fairly common. It inhabits large rivers and lakes where it keeps in pairs or small parties of 5–8, sexes often seen separated (Ali & Ripley 1987; Grimmett et al. 1998; Rasmussen & Anderton 2012).

In the past, Jerdon (1877) cited instances of its procurement by Samuel Tickell at Chybassa (now Chaibasa in Jharkhand) in central India. Hume & Marshall (1881) cited reports from river Rer (river Rihand is known as Rer in Surguja, northern Chhattisgarh) by Ball, at river Mahanadi, near Arung (now known as Arang, central Chhattisgarh) and further down almost to Sambalpur at river Mahanadi (Odisha) by Blewitt and at the Sone River near Dehree (possibly in Bihar), by E. Stewart, C.S. W Forsyth (Rahmani & Islam 2008). The specimen, available with Bombay Natural History Society (BNHS) was collected from Sambalpur (Odisha) an unsexed Merganser by the ruler of Gangpur on 31 December1958, two specimens, a male and a female by R.V. Singhi on 1 February 1972 but the site information was missing (Rahmani & Islam 2008).

The Merganser has not been recorded in central India, in past studies carried out by D'Abreu (1931, 1935) & Hewetson (1956), and recent study by Bharos & Bux (2018); but Chandra & Singh (2004) mention its occurrence from Chhattisgarh (location and other details are not mentioned) presumably based on records mentioned by Hume & Marshall (1881).

Our observations

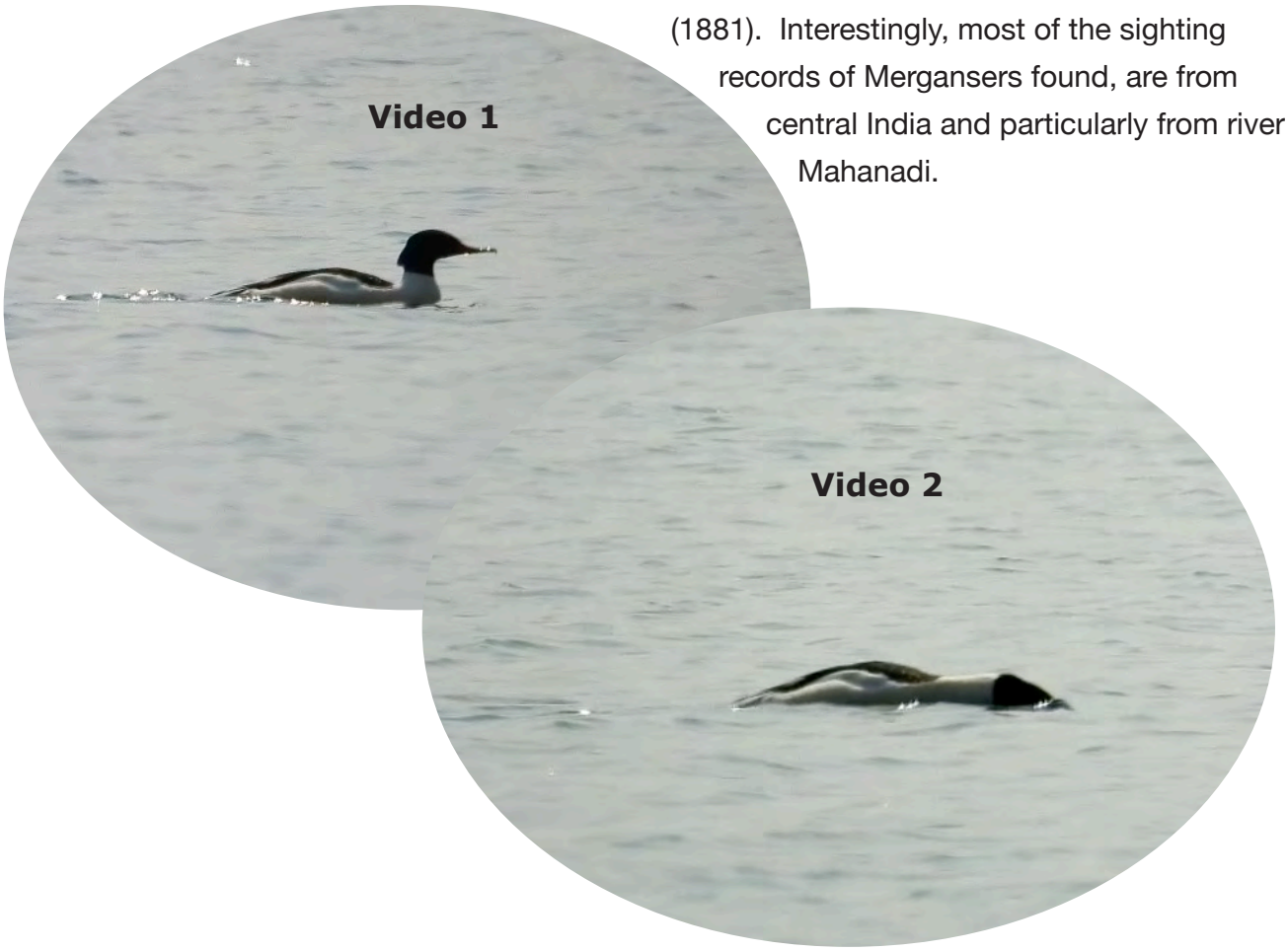
On 14 December 2019 we visited location Futaha-Muda (N 20.536, E 81.689, 333 m) Gangrel Reservoir at river Mahanadi, district Dhamtari, Chhattisgarh and observed birds between 1130 h and 1400 h. During this period, a solitary male Merganser was seen in a lake 10 m from shore which flew away to about 70–80 m There, it kept on swimming but not feeding. Once it arched its back and submerged its beak in water. Simultaneously (Video -1&2), when beak was pulled out it held nothing, as the videos show. It remained at this distance and did not come closer, and also kept silent. Associated species at close quarters were Red-crested Pochard *Rhodonessa rufina*, Gadwall *Anas strepera*, Tufted Ducks *Aythya fuligula* and Great Crested Grebe *Podiceps*

Siighting of Common Merganser at Gangrel Reservoir, river Mahanadi, district Dhamtari, in central Chhattisgarh on 14 December 2019

cristatus but no interaction between them was observed. Next day on 15 Decemeber 2019, the Merganser was not found despite an intensive search in that part of the lake. It possibly may have shifted to other parts where too it could not be found, or possibly had left the lake. The bird observed was photographed and for identification we followed standard literature of Ali & Ripley (1987), Grimmett et al. (1998), and Rasmussen & Anderton (2012), the species was later confirmed by Dr. Asad Rahmani, Former Director, Bombay Natural History Society.

Previously on 28 December 1991, first and third authors observed eight Common Mergansers (sexes undetermined) at Jogdah, Sone Gariyal Sanctuary (N 24.512, E 82.147) Sidhi, Madhya Pradesh, associated with eight species of ducks, geese, and five numbers of Demoiselle Cranes *Grus virgo* and two Northern Lapwings *Vanellus vanellus* and on 15 October 1992, three birds (sexes undetermined) at the water edgesat the same site (photographs not available). Sharma & Sharma (1991) have reported this species on 1 March 1991 at the same location, but they have not mentioned the number of individuals seen.

Our sighting of Common Merganser at Gangrel Reservoir, river Mahanadi, district Dhamtari, in central Chhattisgarh on 14 December 2019 is thus a report of its sighting after a lapse of 138 years, its last mention is at Arang, river Mahanadi by Hume & Marshall (1881). Interestingly, most of the sighting records of Mergansers found, are from central India and particularly from river Mahanadi.



References

Ali, S. & S.D. Ripley (1987). *Compact handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka,* Oxford University Press. Oxford, UK.

Bharos, A.M.K. & F. Bux (2018). Avifauna of Kalidarha dam and Shishupal Cliff in Mahasamund District, Chhattisgarh, India. *Asian Journal of Conservation Biology* 7(2): 119–124.

Chandra, K. & R.K. Singh (2004). Avifauna of Madhya Pradesh and Chhattisgarh. *Zoos' Print Journal* 19(7): 1534–1539.

D'Abreu, E.A. (1931). Notes of the Fauna of British India. Birds, chiefly with reference to the Central Provinces. *Journal of the Bombay Natural History Society* 35(1): 217–219.

D'Abreu, E.A. (1935). A List of the Birds of Central Provinces. *Journal of the Bombay Natural History Society* 38(1): 95–116.

Grimmett, R., C. Inskipp & T. Inskipp (1998). *Birds of the India Sub Continent.* Oxford University Press, 466 pp.

Hewetson, C.E. (1956). Observations on the Bird Life of Madhya Pradesh. *Journal of the Bombay Natural History Society* 53(4): 595–645.

Hume, A.O. & C.H.T. Marshall (1881). *The Game Birds of India, Burmah and Ceylon, Vol. III.* Hume, A.O. Marshall & C.H.T. Marshall, Calcutta, India, pp- 299–304.

Jerdon, T.C. (1877). *The Birds of India;being A Natural History of all the birds known to inhabit continental India Vol. II, Part II.* P.S.D'Rozario & Co., Calcutta, India.

Rahmani, A.R. & M.Z. Islam (2008). *Ducks, Geese and Swans of India;Their Status and Distribution.* Indian Bird Conservation Network; Bombay Natural History Society, Royal Society for the Protection of Birds and BirdLife International. Oxford University Press, 374 pp.

Rasmussen, P.C. & J.C. Anderton (2012). *Birds of South Asia. The Ripley Guide. Vol. 1 and 2. Second Edition.* National Museum of Natural History- Smithsonian Institution, Michigan State University and Lynx Edicions, Washington, D.C., Michigan and Barcelona.

Sharma, R.K. & S. Sharma (1991) Wetland avifauna survey of Sone Gharial Sanctuary in Madhya Pradesh. *Indian Forester* 133(10): 952–957.

Acknowledgements: Authors are sincerely thankful to Dr. Asad R Rahmani for identification of species, encouragement to write a note and comments on the manuscript. Thanks to Pratik Smith Mandal and Amar Mulwani for the field assistance.

A.M.K. Bharos[1], Ravi Naidu[2], Akhilesh Bharos[3], Jageshwar Verma[4], Ameet Mandavia[5] & Gopi Krishan Sahu[6]

[1]State Co-ordinator IBCN (BNHS), AWC (Wetland International), B-101, Gayatrinagar, PO; Shankernagar. Raipur, Chhattisgarh 492007, India.
[2]Ornithologist, Member C.R.O.W. Foundation H NO 48, Anukal dev Ward-31, Jagdalpur, Chhattisgarh 494001, India.
[3]Naturalist Singhinawa Resort, Kanha National Park, Balaghat District, Madhya Pradesh, (b) B-101 Gayatrinagar, Raipur, Chhattisgarh 492007, India.
[4]LIG-1219, Sector -8, Housing Board Colony, village Saddu, Raipur, Chhattisgarh 492014, India.
[5]Member, Wildlife Welfare Foundation, H.No. 88, Suncity, Jagdalpur 494001, Chhattisgarh, India. .
[6]Wildlife Photographer, 84-Brahmanpara, Ward No 28, Dhamtari, 493773, Chhattisgarh, India.
[1]arunmkbharos@gmail.com (corresponding author), [2]ravinaidu0001@gmail.com, [3]wildcentralindia@gmail.com, [4]vermajageshwar12@gmail.com, [5]ameet85@gmail.com, [6]gopikrishansahu009@gmail.com

Citation: Bharos, A.M.K., R. Naidu A. Bharos & J Verma (2022). Recent sighting report on Common Merganser after a century in Chhattisgarh, India. Bird-o-soar #112, In: *Zoo's Print* 37(4): 18–21.

Photographic record of juvenile Black-necked Stork from Punjab, India

During a field visit to Bir Moti Bagh Wildlife Sanctuary, Patiala on 17 August 2021, while I was riding my bike, a single bird was spotted along the edge of the pond in the vicinity of the Sanctuary. On the very first sighting, I was clear the bird was a Black-necked Stork *Ephippiorhynchus asiaticus*. Because of the noise created by my bike, the bird got disturbed and flew away. However, I managed to click two photographs. Geographically, this area falls at 30.33ºN, 76.38ºE with 257 m elevation.

Later on, while identifying and literature survey, I came to know that the bird was a juvenile. Its head, neck, mantle, wing with dull brown plumage and white mottling on lower back rump, breast, belly with dark legs (Grimmett et al. 2011). Population of this species is declining and it is globally Near Threatened (BirdLife International 2016). This species was found majorly near water bodies like well irrigated agricultural land, lake, pond, river, marshes, and wetlands (Choudhary et al. 2010). As per the earlier records, the species is widely distributed in Haryana (Singh et al. 2021) but is not a resident of Punjab (Maheswaran et al. 2004). Till date, only two records are available from Punjab; one from Harike Wildlife Sanctuary and the other from Ropar Wetland but without any photographic evidence (https://ebird.org/species/blnsto1/IN-PB). Hence, this is the first ever photographic record of Black-necked Stork (juvenile) from Patiala (Punjab).

References

BirdLife International (2016). *Ephippiorhynchus asiaticus*. The IUCN Red List of Threatened Species 2016: e.T22697702A93631316. Downloaded on 06.xii.2021. https://doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22697702A93631316.en.

Choudhary, D.N., J.N. Mandal, A. Mishra & T.K. Ghosh (2010). First ever breeding record of Black-necked Stork *Ephippiorhynchus asiaticus* from Bihar. *Indian BIRDS* 6(3): 80–82.

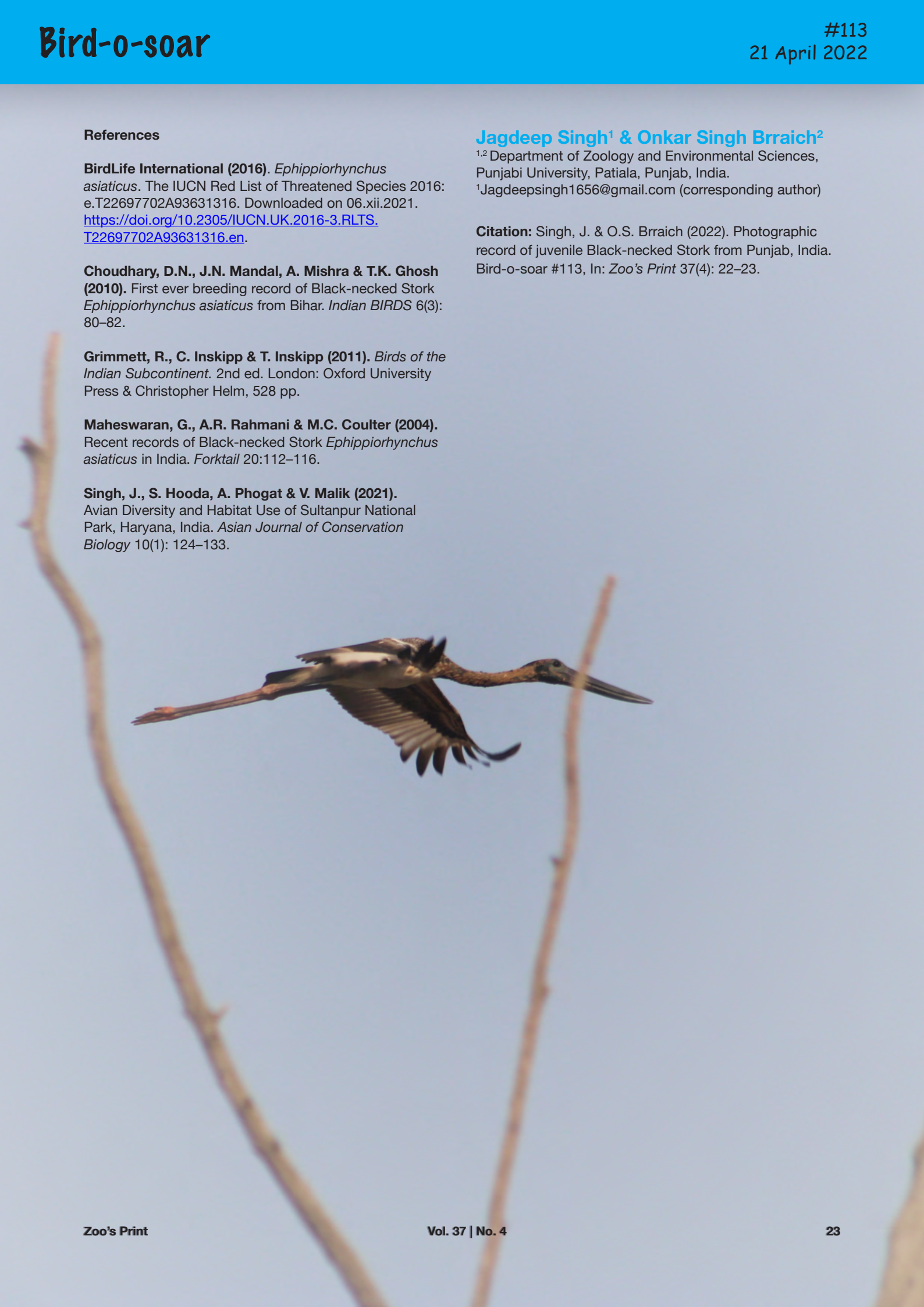
Grimmett, R., C. Inskipp & T. Inskipp (2011). *Birds of the Indian Subcontinent.* 2nd ed. London: Oxford University Press & Christopher Helm, 528 pp.

Maheswaran, G., A.R. Rahmani & M.C. Coulter (2004). Recent records of Black-necked Stork *Ephippiorhynchus asiaticus* in India. *Forktail* 20:112–116.

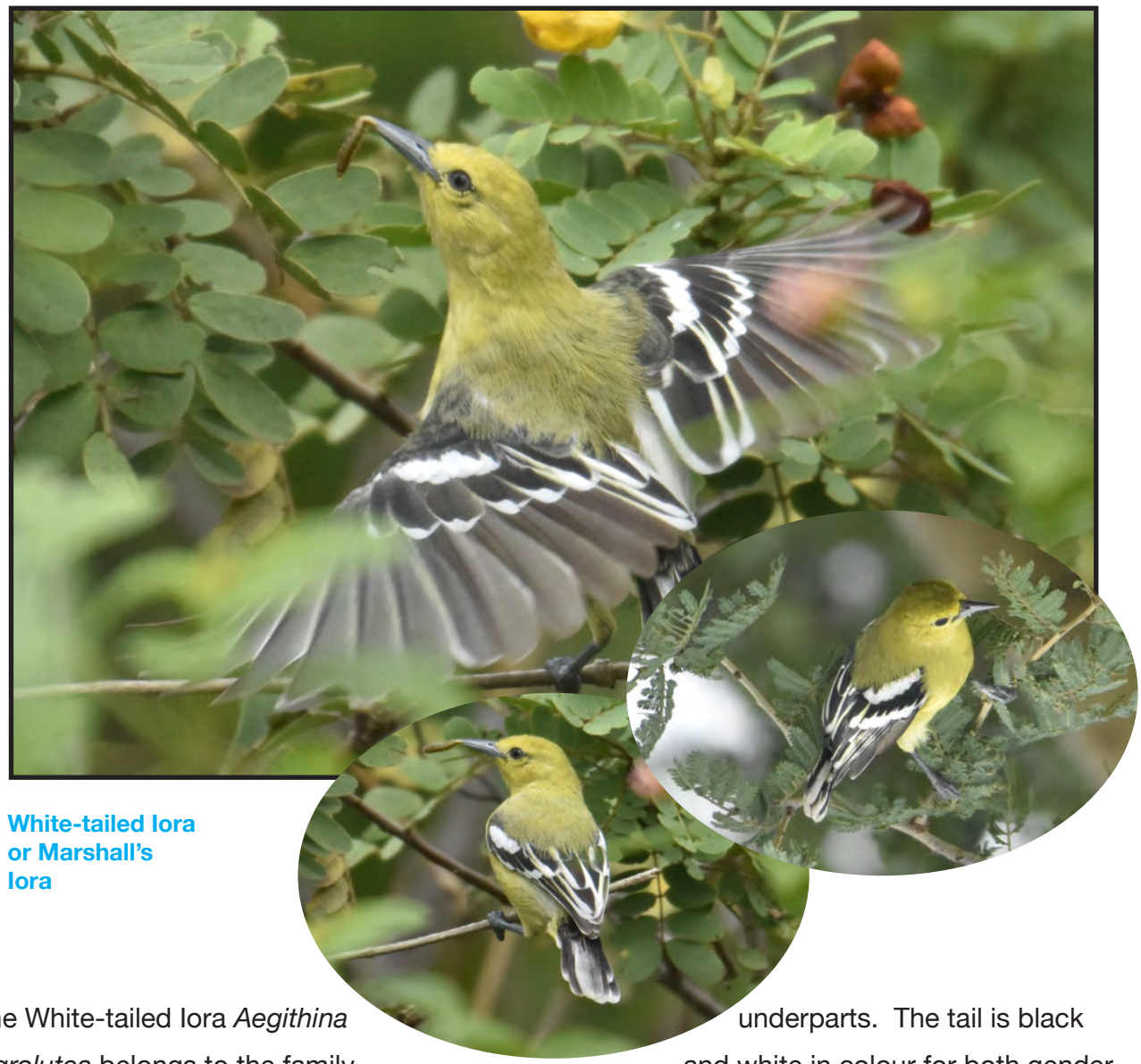
Singh, J., S. Hooda, A. Phogat & V. Malik (2021). Avian Diversity and Habitat Use of Sultanpur National Park, Haryana, India. *Asian Journal of Conservation Biology* 10(1): 124–133.

Jagdeep Singh[1] & Onkar Singh Brraich[2]
[1,2] Department of Zoology and Environmental Sciences, Punjabi University, Patiala, Punjab, India.
[1]Jagdeepsingh1656@gmail.com (corresponding author)

Citation: Singh, J. & O.S. Brraich (2022). Photographic record of juvenile Black-necked Stork from Punjab, India. Bird-o-soar #113, In: *Zoo's Print* 37(4): 22–23.



First record of White-tailed Iora in Tiruchirappalli District, Tamil Nadu, India



White-tailed Iora or Marshall's Iora

The White-tailed Iora *Aegithina nigrolutea* belongs to the family Aegithinidae and is a non-migratory resident bird in India and Sri Lanka (BirdLife International 2016); it is a monogamous passerine bird. It is also called Mashall's Iora. The male bird has golden yellow on the chin, throat and underparts. The black colour appears on the upper parts and wings. The female bird has green upper parts and yellow underparts. The tail is black and white in colour for both gender birds. The bill is straight, pointed pale grey (Grimmett et al. 2011). In India, White-tailed Iora is distributed in the states of Gujarat, Madhya Pradesh, Rajasthan, Chhattisgarh, Odisha, Jharkhand, Uttar Pradesh, Haryana, Punjab, Himachal Pradesh, and Tamil Nadu (Ganpule, 2020). These species normally occur in natural ecosystems of tropical and

Table 1. District wise White-tailed Iora sightings in Tamil Nadu

	Districts	Year	Number of locations	Number of observations
1	Coimbatore	2018–2021	14	20
2	Dharmapuri	2019–2021	5	12
3	Erode	2015–2021	7	10
4	Krishnagiri	2019–2021	3	3
5	Ramanathapuram	2019–2020	3	9
6	Salem	2017–2021	22	271
7	Thoothukkudi	2017	1	1
8	Tirunelveli	2014–2020	3	3
9	Tiruppur	2018–2021	11	24
10	Tiruvannamalai	2018–2021	9	21
11	Vellore	2018	4	4
12	Tiruchirappalli	2021	2	2

subtropical moist lowland forests, moist montane forests, open wooded county, dry grasslands, deciduous forests, and dry savanna (Wells et al. 2003).

The diet of Marshall's Iora consists mainly of insects, beetles, cicadas, crickets, grasshoppers, mantids, moths, termites, spiders and larvae as their primary food. The breeding season of the Marshall's Iora is during June and July in northwestern India. Degradation of habitats is the main threat that may endanger the survival of these species. The IUCN has categorized and evaluated the species and has listed it as 'Least Concern' (BirdLife International, 2016). The CITES status is "Not Evaluated" for

Habitat of White-tailed Iora at Abinimangalam Village in Tiruchirappalli District

Marshall's Iora (www.iucnredlist.org).

First sighting of White-tailed Iora

On 7 November 2021, we went for a bird watching trail along the grasslands surrounded by scrub habitats at Abinimangalam Village in Tiruchirappalli District, Tamil Nadu. The area has a wide range of dry grasses with scrub landscapes. Due to ample rains in recent times, the location looks like a grassy carpet and the conditions perfectly suit birds & other species. The location of the bird spotted was above the sea level.

We started observing birds from 0700 h and recorded 48 species. Around 0911 h, we observed some bird movements on the *Senna auriculata* plant (11.056 N, 78.669 E, 125 m). We first thought it to be a Common Iora, however on further scrutiny and observation we realized that it was White-tailed Iora. The bird was highly energetic and moved fast trying to disappear into the bushes. With some effort we managed to take some photographs of the bird. In the particular location, we observed two White-tailed Ioras. This is the first ever record in Tiruchirappalli District, Tamil Nadu. The identification was confirmed through the photographs and compared with the field guide Grimmett et al. (2011) as White-tailed Iora (Marshall's Iora). Later, this first sighting was recorded and entered in the ebird checklist (https://ebird.org/checklist/S97379147). We interpreted that it is a suitable place for this species.

The details were searched from the published articles. The breeding plumage and vocalizations were Marshall's Iora observed from Gujarat (Ganpule 2014). Siriwardhane (2007) reported notes on the Marshall's Iora in Sri Lanka. We have listed district wise detail of observations recorded from 2014 till 2021 (Table 1). Maximum observations were recorded in Salem District. The present note is the first documented record of White-tailed Iora in Tiruchirappalli District.

References

BirdLife International (2016). Aegithina nigrolutea. In*:* IUCN Red List of Threatened Species. Downloaded on 12 September 2021. https://doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22707436A94123937.en.

Ganpule, P. (2014). The breeding plumage and vocalisations of Marshall's Iora *Aegithina nigrolutea* in Gujarat, India, with notes on distribution and taxonomy. *Birding Asia* 22: 48–54.

Ganpule, P. (2020). White-tailed Iora (Aegithina nigrolutea), version 2.0. In Billerman, S.M. and B.K. Keeney (eds.). *Birds of the World*. Cornell Lab of Ornithology, Ithaca, NY, USA

Grimmett, R., C. Inskipp & T. Inskipp (2011). *Birds of Indian Subcontinent.* Princeton University Press, India, 528 pp.

Siriwardhane, M. (2007). Notes on the Natural History of Marshall's Iora. *Siyoth* 2 (2): 19–24.

Wells, D.R., E.C. Dickinson & R.W.R.J. Dekker (2003). Systematic notes on Asian birds. A preliminary review of the Aegithinidae. *Zoologische Verhandelingen, Leide.* 344: 7–15.

T. Siva[1] & N. Gopinath[2]

[1]Research Department of Zoology, Nehru Memorial College, Puthanampatti, Tiruchirappalli District, Tamil Nadu 621007, India.
[2]No 17/39, North Madhulakolai Street, TT Road, Woraiyur, Tiruchirappalli, Tamil Nadu 620003, India
[1]sivanaturewild@gmail.com (corresponding author), [2]hornbill.gn@gmail.com

Citation: Siva, T. & N. Gopinath (2022). First record of White-tailed Iora in Tiruchirappalli District, Tamil Nadu, India. Bird-o-soar #114, In: *Zoo's Print* 37(4): 24–26.

Record of Pallas's Gull in Buxa Tiger Reserve, West Bengal

Pallas's Gull *Ichthyaetus ichthyaetus* is a well-known winter visitor to the Indian subcontinent. The species is associated with coasts, rivers, and large water bodies (Rasmussen & Anderton 2012).

On 2 April 2010, a Pallas's Gull was rescued from Atiabari Tea Garden (26.64 N, 89.50 E), Alipurduar District in the northern West Bengal. The tea garden is located on the border of Buxa Tiger Reserve (BTR).

The previous night, there was a thunder storm and the bird probably got disoriented and was exhausted. The villagers rescued the bird that was in moribund condition and it died on reaching the forest office. The bird was handed over to the forest staff of BTR and they preserved it at the Nature Interpretation Centre at Rajabhatkhawa.

The bird was an adult and in summer plumage as its head and neck were black with two white crescentic patches below and above the eyes (Ali & Ripley 1983).

Rescued Pallas's Gull © Sachin Ranade

Pallas's Gull specimen at Nature Interpretation Centre, Buxa Tiger Reserve © Sachin Ranade

The records of the species from Sikkim (Sharma & Bhat 2016) and Assam (Muzaffar et al. 2008; Guo-Gang et al. 2014) impelled the necessity to report this find as the BTR lies in northern Bengal situated between the two states. There was

no record of this species from BTR earlier, although it has been regularly sighted at Gajoldoba, Teesta River which is about 100 km away from BTR. In 2013, the species was reported in the check list for BTR in the eBird (Shome 2013). The rivers Torsha, Jaldhaka, and Sankosh flow close by BTR, which could be a suitable habitat for the species. The study of Pallas's Gull's migration between the Qinghai Lake, China (breeding ground) and Bangladesh (wintering ground) showed its regular passage through northern Bengal. Although the global population of Pallas's Gull appears to be stable or increasing, its population has declined at the Qinghai Lake, China (Muzaffar et al. 2008; Guo-Gang et al. 2014). This is one of the important species which is considered as the victim and reservoir of the bird flu virus H5N1 and hence it is necessary to put emphasis on its records and monitoring in India.

References

Ali, S. & S.D. Ripley (1983). *Handbook of the Birds of India and Pakistan Together with those of Bangladesh, Nepal, Bhutan and Sri Lanka.* Compact Edition. Oxford University Press Pp. i–xlii, 1 l., pp. 1–737, 56 ll.

Guo-Gang, Z., L. Dong-Ping, H. Yun-Qiu, J. Hong-Xing, D. Ming, Q. Fa-Wen, L. Jun, M. Tian, C. Li-Xia, X. Zhi & L. Feng-Shan (2014). Migration routes and stopover sites of Pallas's Gulls *Larus ichthyaetus* breeding at Qinghai Lake, China, determined by satellite tracking. *Forktail* 30: 104–108.

Muzaffar, S.B., J.Y. Takekawa, D.J. Prosser, D.C. Douglas, B. Yan, Z. Xing, Y. Hou, E.C. Palm & S.H. Newman (2008). Seasonal movements and migration of Pallas's Gulls *Larus ichthyaetus* from Qinghai Lake, China. *Forktail* 24: 100–107.

Rasmussen, P.C. & J.C. Anderton (2012). *Birds of South Asia: The Ripley Guide.* 2 vols. Second edition. Lynx Edicions, Barcelona.

Sharma, S. & D. Bhat (2016). Migratory Pallas's Gull *Larus ichthyaetus* (Pallas 1773): a new record from Sikkim, the eastern Himalaya, India. *Journal of Threatened Taxa* 8(12): 9449–9453. https://doi.org/10.11609/jot.2123.8.12.9449-9453

Shome, A. (2013). eBird Checklist: https://ebird.org/checklist/S52454430. http://www.ebird.org. Accessed on 02.ix.2021.

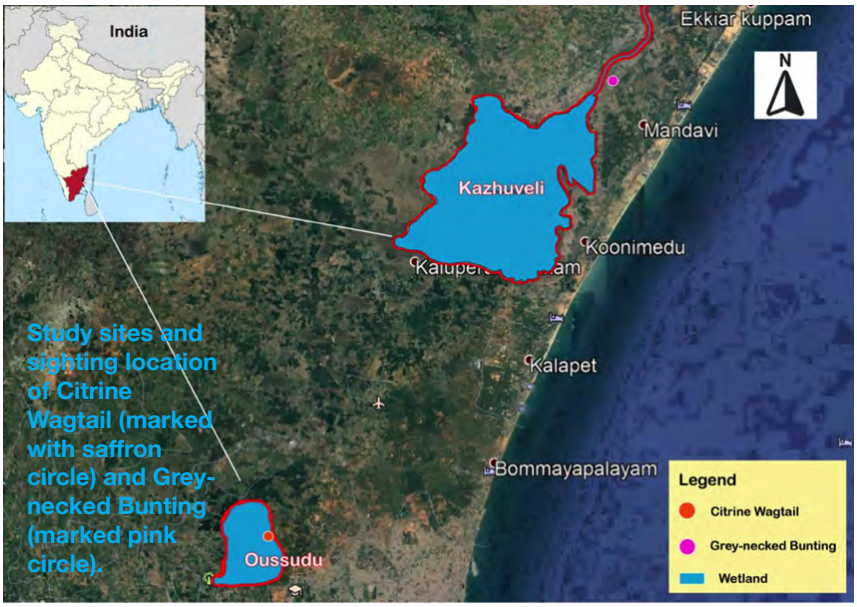
Acknowledgements: The author express gratitude to the field director, Buxa Tiger Reserve and the frontline staff of the Forest Department, West Bengal. Thanks are due to the Bombay Natural History Society, Mumbai for the support and encouragement. .

Sachin Ranade
Vulture Conservation Breeding Center, Rajabhatkhawa, West Bengal, 735227, India. sachinranade@yahoo.com.

Citation: Ranade, S. (2022). Record of Pallas's Gull in Buxa Tiger Reserve, West Bengal. Bird-o-soar #115, In: *Zoo's Print* 37(4): 27–28.

First photographic record of Grey-necked Bunting and Citrine Wagtail in coastal wetlands of Kazhuveli and Oussudu, India

Kazhuveli and Oussudu are important seasonal wetlands of Tamil Nadu and Puducherry and nearly 40,000 migratory and resident birds visit these wetlands during the peak winter season (Balachandran & Alagarajan 1995; Davidar 2011). Kazhuveli is a semi-permanent, fresh to brackish water lake that falls between 12.083° N and 79.800° E, whereas the Oussudu Lake is a freshwater lake situated at 11.950° N to 79.7666° E. The extensive reed beds, mudflats, open water area, groves of thorny scrub, *Acacia nilotica* and *Prosopis juliflora*, and other floating hydrophytes in these wetlands provide a good foraging and roosting site for many resident and migratory birds (Davidar 2011; Rahmani et al. 2016). Kazhuveli and Oussudu have been listed as Important Bird Area (IBA) for India hosting several threatened birds, namely, Greater Spotted



Grey-necked Bunting recorded in Kazhuveli Wetland. © Bubesh Guptha, M.

A male Citrine Wagtail foraging on grass batches of Oussudu Wetland. © Bubesh Guptha, M.

Eagle, Painted Stork, Spot-billed Pelican, Oriental Darter, Black-headed Ibis, and Lesser Flamingo (Islam & Rahmani 2006; Davidar 2011; Rahmani et al. 2016).

As a part of our regular bird survey in Kazhuveli Lake, on 11 December 2020, at 1330 h, while watching a flock of roosting Spot-billed Pelicans on an *Acacia* tree, we sighted a bird that had a distinctive white eye-ring, which stood out in contrast to the grey hood. The chin and throat of the bird were whitish-pink and bordered by grey stripes with pinkish-brown underparts. We were astonished to identify it as the Grey-necked Bunting and before the bird took off from the roost tree, the first author managed to get a picture using his camera (Canon 6D Mark II with 150–600 mm Tamron Tele lens). A perusal through available records of the Grey-necked Bunting's occurrence in Puducherry and Tamil Nadu regions showed that the bird was sighted for the first time in Kazhuveli Wetlands (Table 1). Grey-necked Bunting is a Least Concern bird species flying from the Caspian Sea to the Altai Mountains in central Asia. It winters in parts of Africa, western Asia, and parts of southern Asia as far south as Sri Lanka (Ali & Ripley 1981; BirdLife International 2020a). The natural habitat of this bird is temperate grassland. It is also found in stubbly weeds, dry and open habitats, often stony, and scrubby hillsides.

In another field survey on 02 December 2020, at 1446 h we sighted a bird constantly wagging its tail and preying on insects on the grass batches at the edges of Oussudu Wetland. Surprisingly, we identified it as the Citrine Wagtail *Motacilla citreola* as it had bright yellow on the entire head except for the black nape, pale lores, grey back, and wing bars that distinguished it from the Yellow Wagtail *Motacilla flava*. Earlier sightings of this species in Tamil

Nadu and Puducherry regions are given in Table 1. Available records of the Citrine Wagtail's occurrence in Puducherry show that this has been the first photography record in Oussudu Wetland. Citrine Wagtail is a Least Concern bird species; breeds in the central Palearctic in wet meadows and tundra. It migrates in winter to southern Asia, often to highland areas. Its range is expanding westwards, and it is a rare but increasing vagrant to western Europe. The Citrine Wagtail has been recorded as an extremely rare passer-by rather than staying even for a few days or weeks (Ali & Ripley 1981; Inskipp et al. 2000; BirdLife International 2020b). It is an insectivorous bird associated with marshland and grassy jheels and some of them often seen on floating lotus leaves and vegetation in a tank, tripping along lightly in search of insects. The Kazhuveli Wetland has vast grass cover, which is catering to the needs of many insectivorous birds including Citrine Wagtail.

Table 1. Comparison of the sightings of Grey-necked Bunting and Citrine Wagtail in Tamil Nadu and Puducherry regions.

	Date	Species	Location	Individuals	Sighted by
1	20.i.2017	Grey-necked Bunting	Devanoorputhur, Tiruchirappalli district, Tamil Nadu	1	Siva & Neelanarayanan, 2017
2	09.xii. 2018	Grey-necked Bunting	Kannampalyam grasslands, Coimbatore, Tamil Nadu, India	2	Coimbatore Nature Society
3	22.xi.2020	Grey-necked Bunting	Pappampatti Grassland, Coimbatore, Tamil Nadu, India	1	Krishnamoorthy Muthirulan
4	**11.xii.2020**	**Grey-necked Bunting**	**Kazhuveli Wetland, Tamil Nadu, India**	**1**	**Present Study**
5	21.xii.2013	Citrine Wagtail	Indian Institute of Technology (IIT) Madras, Chennai, Tamil Nadu, India	1	Anonymous eBirder
6	07.xi.2016	Citrine Wagtail	Indian Institute of Technology (IIT) Madras, Chennai, Tamil Nadu, India	4	Rama Neelamegam
7	04.xii.2016	Citrine Wagtail	T.N. Palayam Lake, Puducherry, India	2	Surendhar Boobalan
8	13.i.2018	Citrine Wagtail	Kannankurichi (Mookaneri) Lake, Salem, Salem, Tamil Nadu, India	2	Venkatraman Rajamanickam
9	28.iii.2018	Citrine Wagtail	Indian Institute of Technology (IIT) Madras, Chennai, Tamil Nadu, India	5	Mahathi Narayanaswamy
10	20.x.2018	Citrine Wagtail	Ram Nagar Swamps, Madipakkam, Chennai, Tamil Nadu, India	2	Aravind AM
11	08.iii.2019	Citrine Wagtail	Sholinganallur/Perumbakkam Marshlands, Kancheepuram, Tamil Nadu, India	2	Sidharth Srinivasan
12	15.xii.2019	Citrine Wagtail	Indian Institute of Technology (IIT) Madras, Chennai, Tamil Nadu, India	14	Mahathi Narayanaswamy
13	**02.xii.2020**	**Citrine Wagtail**	**Oussudu Wetland, Puducherry & Tamil Nadu, India**	**1**	**Present Study**

Source: eBird 2020a,b.

As both the species were documented through a single individual sighting, further monitoring and surveillance in and around these wetlands during the winter season is essential to establish whether their occurrence at these wetlands was accidental or regular. Realizing the ecological significance of these wetlands, strict enforcement of legislation along with local people support would not only restore the quality of wetlands, but also its visitors.

Acknowledgements: We thank Mr. P. Veeramani, research assistant and other staff from Universal Eco Foundation, Puducherry and Tamil Nadu Forest Department, Viluppuram, for their help during the survey.

References

Ali, S. & S.D. Ripley (1981). *Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Ceylon. Stone Curlews to Owls.* 2nd ed. Delhi: (Sponsored by Bombay Natural History Society.) Oxford University Press. Vol. 3 of 10 vols. xvi+327 pp.

Balachandran, S. & R. Alagarajan (1995). *An ecological survey of the wetlands of Pondicherry with special reference to Oussudu lake.* Institute of Restoration of Natural Environment, Nagercoil, 40 pp.

BirdLife International (2020a). Species factsheet: *Emberiza buchanani*. Downloaded from http://www.birdlife.org on 16/12/2020.

BirdLife International (2020b). Species factsheet: *Motacilla citreola*. Downloaded from http://www.birdlife.org on 16/12/2020.

eBird (2020a). Species Map: *Emberiza buchanani.* https://ebird.org/species/gyhbun1/IN-TN Accessed on 02 January 2021.

eBird (2020b). Species Map: *Motacilla citreola.* https://ebird.org/species/citwag/IN-TN Accessed on 02 January 2021.

Inskipp, C., T. Inskipp & Sherub (2000). The ornithological importance of Thrumshingla National Park, Bhutan. *Forktail* 14: 147–162.

Islam, M.Z. & A.R. Rahmani (2006). *Important Bird Areas of India*. IBCN, Bombay Natural History Society, Mumbai.

Davidar, P. (2011). *Wetland Birds of Pondicherry Regions. A Pocket Field Guide*. Ecos, Puducherry, India.

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.

Siva, T. & P. Neelanarayanan (2017). First record of migratory Grey-necked Bunting *Emberiza buchanani* Blyth 1844 (Aves: Passeriformes: Emberizidae) as a winter visitor in Tiruchirappalli District, Tamil Nadu, India. *Journal of Threatened Taxa* 9(12): 11095–11096. https://doi.org/10.11609/jott.3809.9.12.11095-11096.

Mani Bubesh Guptha[1] & Samidurai Jayakumar[2]
[1]Universal Eco Foundation, Puducherry, India.
[2]A.V.C. College (Autonomous), Mayiladuthurai, Tamil Nadu, India.
[1]bubesh.guptha@gmail.com, [2]jayakumar.msv@gmail.com. (corresponding author)

Citation: Guptha, M.B. & S. Jayakumar (2022). First photographic record of Grey-necked Bunting and Citrine Wagtail in coastal wetlands of Kazhuveli and Oussudu, Indial. Bird-o-soar #116, In: *Zoo's Print* 37(4): 29–32.

Malabar Whistling Thrush: a new addition to the avian diversity of Savitribai Phule Pune University

The Malabar Whistling Thrush, *Myophonus horsfieldii* (Vigors, 1831) is a member of the family Muscicapidae and a resident of the Western Ghats. The species is also known to occur in the Eastern Ghats (Ananth 1982) and hills in central India (Grimmett et al. 2011). It is commonly called 'the whistling schoolboy' owing to the resemblance of its calls to human whistling (Grewal 2000; Grimmett et al. 2011).

Malabar Whistling Thrush at SPPU campus, Pune, Maharashtra. © Abhishek Verma.

The Malabar Whistling Thrush is not migratory, but its movement to far away areas have been observed during winter season (Praveen 2006; Panda et al. 2017). It is usually observed near rocky hill streams, and well-wooded areas (Grimmett et al. 2011). *M. horsfieldii* has shiny patches of blue colour on the forehead and shoulder which become visible in oblique lighting. The species does not exhibit sexual dimorphism.

Savitribai Phule Pune University (SPPU) located in Pune city (Maharashtra) has a sprawling lush green campus spread over 411 acres containing gardens, plantations, a nursery, fragmented patches of open dry deciduous forest, farmland, evergreen patches, and a pond. These together provide a fascinating habitat that attracts several birds of diversified food habits (e.g., raptors, insectivores, frugivores, omnivores). The university campus is among the most popular birding spots within the city limits and its avian diversity has been well documented. In 1976, 91 bird species were recorded from the university campus (Goel 1976).

The avifauna of the campus has undergone considerable change in the last four decades. In a study conducted between 2014 and 2018, 16 new bird species have

been observed in SPPU, leading to 106 bird species listed from the university campus (Choudaj & Wankhade 2021).

On 21 October 2021 at 0815 h, I heard the typical whistling call of the Malabar Whistling Thrush while surveying the area near Alice garden located within the premises of SPPU. I followed the call and spotted an individual perched on a tree amidst dense vegetation.

The glistening blue colour on the forehead and shoulder patch was clearly visible. The wings and tails were edged with glistening blue. The bird soon disappeared into the shady undergrowth of the garden. The identification features and call confirmed it to be of Malabar Whistling Thrush.

There is no record of the occurrence of Malabar Whistling Thrush in SPPU campus and the species has not been listed in previously published SPPU bird checklists (Goel 1976; Choudaj & Wankhade 2021). eBird database search also revealed that the bird has not been observed in the SPPU campus earlier (eBird 2021). Therefore, this is the first sighting of the Malabar Whistling Thrush from SPPU campus.

The present sighting is a new addition to the avian diversity of SPPU and can serve as a valuable information for researchers studying this bird species. Further studies need to be undertaken to track and map the occurrence of this species during all months in SPPU campus.

References:

Ananth, G. (1982). Malabar Whistling Thrush near Madanapalle. *Newsletter for Birdwatchers*, 22(3&4): 10–11.

Choudaj, K. & V. Wankhade (2021). Changed avian assemblage of Savitribai Phule Pune University campus in last four decades. *Journal of Threatened Taxa* 13(3): 17990–17998

eBird (2021). eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. http://www.ebird.org. Accessed on 12.xii.2021.

Goel, S.C. (1976). The birds of the campus of Poona University. *Journal of University of Poona (Science and Technology)* 48: 109–118

Grewal, B. (2000). Birds of the Indian Subcontinent. Local Colour Limited Quary Bay, Hong Kong.

Grimmett R., C. Inskipp & T. Inskipp (2011). Birds of the Indian Subcontinent. Oxford University Press, New Delhi.

Panda, B., S. Pati & B.P. Dash (2017). Occurrence of Malabar Whistling Thrush: *Myophonus horsfieldii*, (Vigors 1831) in Similipal Biosphere Reserve of Odisha. Bird-o-soar #05. In: *Zoo's Print* 32(11): 37–38

Praveen, J., (2006). Post-monsoon dispersal of Malabar Whistling Thrush *Myiophonus horsfieldii* (Vigors) to Chamundi Hill and Nandi Hills, Karnataka, southern India. *Zoos' Print* 21(9): 2411.

Abhishek Verma
ICAR – IARI, Regional Station, Aundh, Pune, Maharashtra 411007, India. abhishek10verma@gmail.com

Citation: Verma, A. (2022). Malabar Whistling Thrush: a new addition to the avian diversity of Savitribai Phule Pune University. Bird-o-soar #117, In: *Zoo's Print* 37(4): 33–34.

Collection and documentation of *Iphiona grantioides* from Gujarat and note on its distribution

The knowledge about recent distribution is indispensable for taxonomist interested in the species. *Iphiona grantioides* (Boiss.) Anderb. (Asteraceae) has scanty and old information about its distribution in India. *Iphiona* genus has only one species in India (Shekhar et al. 2013). The genus *Iphiona* Cass. was previously known as *Inula* L.; however, some of the species belonging to this genus were reclassified in the genus *Iphiona* (Anderberg 1991; Shekhar et al. 2013).

A—Habit | B—Flowering twig | C—Herbarium voucher specimen.

The lectotype of this plant is available with Royal Botanical Garden, Kew. The specimens deposited at Royal Botanical Garden were collected by F. Stoliczka (lectotype: K!barcode no. K000978629) from Kachchh in the year 1985. As per the present distribution record, this species is distributed in India, Iran, Oman, and Pakistan (POWO 2020). In India, Hooker (1882) recorded this species from Kachchh, Raghavan et al. (1981) enlisted the species in checklist of plants of Gujarat, and Hajra et al. (1995) reported this species from Gujarat without giving specific locality and collection number. Later, state-level research was carried out by Pilo et al. (1996) in which, the specimen was collected from Kachchh and deposited in BARO herbarium, Maharaja Sayajirao University of Baroda, Gujarat. Its occurrence was recorded by Jani (2014) based on Raghavan et al. (1981) and Pilo et al. (1996) report. There are some earlier botanical studies carried out by Shah (1978), Rao (1981), Sabnis & Rao (1983), and Bhatt (1993) in Kachchh district, but none had recorded occurrence of *Iphiona grantioides* (Boiss.) Anderb. from Kachchh district. In recent studies such as Pandey et al. (2009), Patel et al. (2011, 2019) did not record this species in Kachchh region. However, during a floristic exploration

in the Canal Command Area in Patan district of Gujarat in the year of 2020, we collected specimens of *Iphiona grantioides* (Boiss.) Anderb. from the Patanka village, of Patan district (23.867 N, 71.272 E) and Mardak Bet, Little Rann of Kachchh (23.387 N, 71.086 E) other than the type locality provided at herbarium of Kew Botanical Garden. In Patan district, the height of plant was up to 70 cm whereas in Kachchh district height was up to 15 cm. So, the taxonomic efforts were made for documentation and to know its distribution in the Gujarat state. Due to its morphological variations there was confusion in identity of the species. The authentic identification of the species was confirmed by the Botanical Survey of India (BSI), Jodhpur, Rajasthan (Letter No: BSI/AZRC/I.1201/Tech./2020-21 (PI. Id.)/22 dated on 03.vi.2020). The voucher specimen is deposited in BSI, Jodhpur, Rajasthan for reference purposes.

Morphological description

Perennial, herb, soft aerial parts and woody base, stems 15–70 cm high, glandular and hairy, branches very stout short, leaves linear to spoon-shaped, leaves fleshy lower long-petioled cuneate 3-fid, upper linear entire or 3-toothed and balsamic odour, flower heads yellow 1 inch diameter, solitary, radiate, involucre bract pubescent and viscid, outer short green obtuse, inner narrower long acute, achenes large strongly ribbed hispid above constricted below the tip**,** ray florets are 5–13, 9–20 × 2.5 mm. Disc florets are 40–90; flower 6–11 × 1.5–2mm, style about 7–8 mm long.

Phenology: November–December

Locality: Patanka village of Patan district, Gujarat (23.867 N, 71.272 E) and Mardak Bet, Little Rann of Kachchh, Gujarat (23.387°N, 71.086°E) from where the specimen was noted.

Present status or ecological note: Based on the current study and available literatures, *Iphiona grantioides* is found occasionally in arid and semi-arid areas of Gujarat state. During the study, the species was found with only few individuals at two sites as mentioned above. It prefers stony ground, dry river beds and dry areas to grow vigorously.

Specimen examined: 0052 (GEER) 19.viii.2019, Patanka village of Patan district, Gujarat, 23.8672 N, 71.2725 E, coll. R. Yadav & A. Suthar. The specimen is confirmed by the Botanical Survey of India (BSI), Jodhpur, Rajasthan (Letter No: BSI/AZRC/I.1201/Tech./2020-21 (PI. Id.)/22 dated on 03.vi.2020).

Basionym: *Inula grantioides* (Boiss.) Anderb., Nordic J. Bot. 5(2): 184 (1985)

Synonyms: *Helenium* grantioides *(Boiss.)* Kuntze, Revis. Gen. Pl.1:343 (1891)*, Inula cutchica* C.B Clarke., Compos. Ind.: 126 (1876) *Callistephus cuneatus* Dalzell ex Cook, Fl. Bombay 2:31(1904)

References

Anderberg, A.A. (1991). Taxonomy and Phylogeny of the Tribe Inuleae (Asteraceae). *Plant Sytematic and Evolution* 176: 75–123.

Pilo, B., B.J. Pathak, B.A. Kumar, V.K. Murukesan, K.R. Vinod & S. Kumari (1996). *Biological Diversity of Gujarat-Current Knowledge.* Gujarat Ecological Commission, Vadodara, Gujarat, India, 288 pp.

Hajra, P.K., R.R. Rao, D.K. Singh & B.P. Uniyal (1995). *Flora of India (Asteraceae - Inuleae and Vernoneae)-(Vol. 13)*. Botanical Survey of India, Government of India, Calcutta, 409 pp.

Hooker, J.D. (1882). *Flora of British India* (Vol. III). L. Reeve ans Co. London, 732 pp.

Jani, M.D. (2014). Bridging the Knowledge gap and Devloping an interactive system for Identification of Gujarat Flora. PhD Thesis. Department of Biosciences, Sardar Patel University, Anand, 208 pp.

Raghavan, R.S., B.M. Wadhwa, M.Y. Ansari & R.S. Rao (1981). A Checklist of Plants of Gujarat (Vol. 21). *Records of Botanical Survey of India* 21: 1–120.

Pandey, R.P., V. Singh & P.J. Parmar (2009). Phytodiversity of Narayan Sarovar Wildlife Sanctuary, Kachchh, Gujarat, India. *Nelumbo* 51: 41–98.

Patel, R.M., Ashishkumar & M.J. Kaneria (2019). Floristic Diversity, Distribution and Conservation Status in the Vicinity of Coal Mines of Kachchh District in Gujarat, India, pp. 145–173. In: Sukla, V. & N. Kumar (eds.). *Environmental Concerns and Sustainable Development*. Springer, Singapore, 215 pp.

Patel, Y.S., R.M. Patel, P.N. Joshi & Y.B. Dabgar (2011). Study of Angiospermic Flora Kuchchh district, Gujarat, India. *Life Sciences Leaflets* 19: 739–768.

Shah, G.L. (1978). *Flora of Gujarat State (Vol- I and II).* Sardar Patel University, Vallabh Vidyanagar, Anand, Gujarat, 1074pp.

Rao, K.S. (1981). *Studies on Flora in the South Eastern Kuchchh*. PhD Thesis. Department of Botany, Maharaja Sayajirao University of Baroda, Vadodara, Gujarat.

Sabnis, S.D. & K.S. Rao (1983). Observation of some rare and endangered endemics of south eastern Kuchchh, pp. 71–77. In: Jain, S.K. & R.R. Rao (eds.). *Assessment of Threatend Plants of India*. Botanical Survey of India, Hawrah.

Bhatt, J.B. (1993). *Studies on the Flora of Western Kuchchh*. PhD Thesis. Department of Botany Maharaja Sayajirao University of Baroda, Vadodara, Gujarat.

POWO (2020). Plants of the World Online. Facilated by the Royal Botanical Gardens, Kew. http://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:915090-1#bibliography. Accessed 15 June 2020.

Shekhar, S., A.K. Pandey & A.A. Anderberg (2013). The Genus *Inula* (Asteraceae) in India. *Rheedea* 23(2): 113–127.

Acknowledgements: We are thankful to Saradar Sarovar Narmada Nigam Limited for providing financial assistance for carrying out a floristic study in the Narmada Canal Command area; the officials of the Botanical Survey of India (BSI) for species confirmation and authentication; Dr. S.L Meena, scientist, BSI, Kolkata for his valuable inputs during the discussion on the plants distribution in Gujarat; Vinesh Gamit JRF, GEER Foundation, for his contribution and assistance during sampling of the plant.

Rajkumar Yadav[1], Ashok Suthar[2], Ketan Tatu[3] & R.D. Kamboj[4]

[1,2,3,4]Gujarat Ecological Education and Research Foundation, Indroda Nature Park, P.O. Sector 7 Gandhinagar, Gujarat 382007, India
[1]rajbot99@gmail.com (corresponding author), [2]sutharashok98@gmail.com, [3]drtatusrsci@gmail.com [4]dir-geer@gujarat.gov.in.

Citation: Yadav, R., A. Suthar, K. Tatu & R.D. Kamboj (2022). Collection and documentation of *Iphiona grantioides* from Gujarat and note on its distribution. Plantasia #25, In: *Zoo's Print* 37(4): 35–37.

Workshop on “Basic Wildlife Monitoring Techniques” promoting wildlife conservation education among students in Chotanagpur plateau, India

Conservation threats to non-human beings include deteriorating forest habitats, increase in invasive species, human-climate negative interactions, and overexploitation. In India, these threats are more prevalent in reserve forests and other unprotected forest areas than in protected areas, which results in negative interaction between wildlife and humans. Similarly, on the Chotanagpur plateau, various conflict issues involving large mammals such as elephants, leopards, striped hyenas, and so on have emerged in recent decades.

Participated students during the field expedition at Ajodhya hills, Purulia

Green Plateau (https://www.greenplateau.org/) is a non-governmental organization that focuses on various capacity-building programmes in conjunction with public education and awareness about wildlife research and conservation. Green Plateau

Installed camera trap captured a striped hyena during the field expedition at Ajodhya hills, Purulia - © Green Plateau Workshop 2021 and Purulia Forest Department

has launched an initiative for skill development programme with an interdisciplinary approach – "Basic Wildlife Monitoring Techniques" – to impart scientific knowledge on basic wildlife monitoring techniques using an active learning approach. The programme included field-based training to hone applied technical skills and educate participants on the principles and ethics of wildlife life research.

A group of 59 undergraduate and postgraduate students of different disciplines (zoology, botany, agriculture, computer science, medical, engineering, and so on) from various districts in West Bengal attended the workshop in July–August 2021. The workshop began with a series of online sessions and concluded with a three-day field expedition (image 1). The sessions presented an interdisciplinary approach to study non-human life forms. Students learned about various theoretical components of variation in wildlife research, conservation issues, and monitoring techniques, among other things.

Then, 16 students from the group participated in the field expedition. They visited several landscapes: agroforest, wild forest, and social forest.

They learned how to use various essential equipment such as GPS, binoculars, range-finders, drones, camera traps, etc. in wildlife monitoring surveys. Their installed camera traps captured a striped hyena, as shown in image 4. They saw the presence of wild animals right alongside us, next to human settlements, which gave them an understanding of wildlife living harmoniously in a human-dominated world. They understood that people's relationships with native wildlife can always be positive rather than negative. And the presence of these wild animals is essential to the surrounding ecosystem and, therefore, our own well-being.

Finally, the workshop has become a successful event after motivating participants to use their enthusiasm to explore their local

biodiversity with scientific rigour. They joined Green Plateau's skill development forum, and the majority of them are working to promote wildlife research and conservation education programmes. Green Plateau will be continuing this workshop ever year and it will be beneficial if more institutions and organizations become involved in the workshop and work together in different parts of the Chotanagpur plateau in the future.

Acknowledgments: We are grateful to DFO Mr. Debasis Sharma, ADFO Mr. Abhisek Chawdhury, RFO Mr. Pallab Gorai (Matha Range) of Purulia Forest Division, and the forest guards and frontline staff of the Matha Range for their immense support provided during the field expedition. We are also thankful to Mr. Dharambir Paramanik, Mr. Abhijit Ganguly, Mr. Tarun Mahato, Mr. Mithun Gorai and all the members of Green Plateau Organization for their continuous encouragement.

Santanu Mahato[1], Supriya Samanta[2], Diptesh Goswami[3], Anirban Dash[4], Shreya Bhattacharya[5], Anirban Patra[6] & Arijit Pal[7]

[1-7]Green Plateau Organization, Hatirampur, Bankura, West Bengal 722121, India

[1]Biopsychology Laboratory, Institution of Excellence, University of Mysore, Mysuru, Karnataka 570006, India

[2]Wildlife Information Liaison Development, 12 Thiruvannamalai Nagar, Saravanampatti, Coimbatore, Tamil Nadu 641035, India

[2,3]Department of Zoology, Sidho-Kanho-Birsha University, Purulia, West Bengal 723104, India

[4]Rural Dreams, Simlapal, Bankura, West Bengal 722151, India

[5]IUCN SSC Monitor Lizard Specialist Group

[7]National Institute of Advanced Studies (NIAS), Bengaluru 560012, Karnataka, India

[1]santanumahato94@gmail.com & [2]supriyasamanta1234@gmail.com (corresponding authors)

Citation: Mahato, S., S. Samanta, D. Goswami, A. Dash, S. Bhattacharya, A. Patra & A. Pal (2022). Workshop on "Basic Wildlife Monitoring Techniques" promoting wildlife conservation education among students in Chotanagpur plateau, India. Zoo's Print 37(4): 38–40.

ZOO'S PRINT

Communicating science for conservation

ZOO'S PRINT Publication Guidelines

We welcome articles from the conservation community of all SAARC countries, including Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka and other tropical countries if relevant to SAARC countries' problems and potential.

Type — Articles of semi-scientific or technical nature. News, notes, announcements of interest to conservation community and personal opinion pieces.

Feature articles — articles of a conjectural nature — opinions, theoretical, subjective.

Case reports: case studies or notes, short factual reports and descriptions.

News and announcements — short items of news or announcements of interest to zoo and wildlife community

Cartoons, puzzles, crossword and stories

Subject matter: Captive breeding, (wild) animal husbandry and management, wildlife management, field notes, conservation biology, population dynamics, population genetics, conservation education and interpretation, wild animal welfare, conservation of flora, natural history and history of zoos. Articles on rare breeds of domestic animals are also considered.

Source: Zoos, breeding facilities, holding facilities, rescue centres, research institutes, wildlife departments, wildlife protected areas, bioparks, conservation centres, botanic gardens, museums, universities, etc. Individuals interested in conservation with information and opinions to share can submit articles ZOOS' PRINT magazine.

Manuscript requirements
Articles should by typed into a Word format and emailed to zooreach@zooreach.org. Avoid indents, all caps or any other fancy typesetting. You may send photos, illustrations, tables.

Articles which should contain citations should follow this guideline: a bibliography organized alphabetically and containing all details referred in the following style: surname, initial(s), year, title of the article, name of journal, volume, number, pages.

Editorial details
Articles will be edited without consultation unless previously requested by the authors in writing. Authors should inform editors if the article has been published or submitted elsewhere for publication.

Publication Information

ZOO'S PRINT, ISSN 0973-2543
Published at: Coimbatore

Owner: Zoo Outreach Organisation, 12, Thiruvannamalai Nagar, Saravanampatti - Kalapatti Road, Saravanampatti, Coimbatore, Tamil Nadu 641035, India.

ZOO'S PRINT magazine is informal and newsy as opposed to a scientific publication. ZOO'S PRINT magazine sometimes includes semi-scientific and technical articles which are reviewed only for factual errors, not peer-reviewed.

Address
Zoo Outreach Organisation
Post Box 5912, 12, Thiruvannamalai Nagar,
Saravanampatti - Kalapatti Road, Saravanampatti,
Coimbatore, Tamil Nadu 641035, India
Phone: +91 9385339862 & 9385339863
E-mail: zooreach@zooreach.org
Website: www.zoosprint.zooreach.org,
www.zooreach.org

ZOOREACH
ZOO OUTREACH ORGANIZATION

TUESDAY, MAY 10, 2022 AT 10:30 PM – 12 AM UTC+05:30

Bridging the gap: 25 years of capacity building for wildlife health professionals

“What image comes to mind when you hear the term wildlife health professional? Join our ZSL Science and Conservation event on 10 May 2022 18:00 - 19:30 (British Summer Time) to find out the diverse set of roles wildlife health professionals trained by the collaborative initiative ‘The Wildlife Health Bridge’ have gone on to fill. Showcasing the impact these professionals have had on the wider world of wildlife health over the past twenty-five years and highlighting why they are needed now more than ever.” This interactive event will be livestreamed on the ZSL YouTube channel: ZSL Science and Conservation - YouTube.

A link to the Facebook event can be found here and for more information please visit Bridging the gap: 25 years of capacity building for wildlife health professionals | Zoological Society of London (ZSL)