

Building evidence for conservation globally

Journal of Threatened TAXA

10.11609/jott.2022.14.10.21903-22038

www.threatenedtaxa.org

26 October 2022 (Online & Print)

14 (10): 21903-22038

ISSN 0974-7907 (Online)

ISSN 0974-7893 (Print)

Open Access



43/2 Varadarajulu Nagar, 5th Street West, Ganapathy, Coimbatore, Tamil Nadu 641035, IndiaPh: +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),
12 Thiruvannamalai Nagar, Saravanampatti, Coimbatore, Tamil Nadu 641035, India**Deputy Chief Editor****Dr. Neelesh Dahanukar**

Noida, Uttar Pradesh, India

Managing Editor**Mr. B. Ravichandran**, WILD/ZOO, Coimbatore, 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 641035, India**Dr. B.A. Daniel**, ZOO/WILD, Coimbatore, Tamil Nadu 641035, India**Editorial Board****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, Mavinahalli PO, Nilgiris, Tamil Nadu 643223, India

Dr. Martin Fisher

Senior Associate Professor, Battcock Centre for Experimental Astrophysics, Cavendish Laboratory, JJ Thomson Avenue, Cambridge CB3 0HE, UK

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**Mr. P. Ilangovan**, Chennai, India**Web Development****Mrs. Latha G. Ravikumar**, ZOO/WILD, Coimbatore, India**Typesetting****Mrs. Radhika**, ZOO, Coimbatore, India**Mrs. Geetha**, ZOO, Coimbatore India**Fundraising/Communications****Mrs. Payal B. Molur**, Coimbatore, India**Subject Editors 2019–2021****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, Kuvenpu University, Shimoga, Karnataka, India**Dr. K.R. Sridhar**, Mangalore University, Mangalagangotri, Mangalore, Karnataka, India**Dr. Gunjan Biswas**, Vidyasagar University, Midnapore, West Bengal, 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**, Kadoorie Farm and Botanic Garden Corporation, Hong Kong S.A.R., China**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. Manda Datar**, Agharkar Research Institute, Pune, Maharashtra, India**Dr. M.K. Janarthanam**, Goa University, Goa, India**Dr. K. Karthigeyan**, 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. Nobile**, 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. Navendra Page**, Wildlife Institute of India, Chandrabani, Dehradun, Uttarakhand, India**Dr. Kannan C.S. Warrier**, Institute of Forest Genetics and Tree Breeding, Tamil Nadu, India**Invertebrates****Dr. R.K. Avasthi**, Rohtak University, Haryana, India**Dr. D.B. Bastawde**, 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**, Ilandudno, North Wales, LL30 1UP**Dr. Hemant V. Ghate**, Modern College, Pune, India**Dr. M. Monwar Hossain**, Jahangirnagar University, Dhaka, Bangladesh**Mr. Jatishwar Singh Irungbam**, Biology Centre CAS, Branišovská, Czech Republic.**Dr. Ian J. Kitching**, Natural History Museum, Cromwell Road, UKFor Focus, Scope, Aims, and Policies, visit https://threatenedtaxa.org/index.php/JoTT/aims_scopeFor 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: Himalayan Gray Langur *Semnopithecus ajax* (adult female) © Rupali Thakur.



An updated checklist of reptiles from Dampa Tiger Reserve, Mizoram, India, with sixteen new distribution records

Malsawmdawngiana¹ , Bitupan Boruah² , Naitik G. Patel³ , Samuel Lalronunga⁴ , Isaac Zosangliana⁵ , K. Lalhmangaiha⁶  & Abhijit Das⁷ 

^{1,2,3,7} Wildlife Institute of India, PO 18, Chandrabani, Dehradun, Uttarakhand 248001, India.

^{4,5,6} Systematic and Toxicology laboratory, Department of Zoology, Mizoram University, Aizawl, Mizoram 796004, India.

¹valpuia17@gmail.com, ²bitupan.kaz@gmail.com, ³naitikpmsu@gmail.com, ⁴samuellrma@gmail.com, ⁵zosanglianaisaac6@gmail.com,

⁶hmangaihakhangte34@gmail.com, ⁷abhijit@wii.gov.in (corresponding author)

Abstract: We present an updated inventory of the reptilian fauna of Dampa Tiger Reserve based on two separate field surveys during March and September 2021. We recorded 33 species of reptiles which is about 27% of the total reptilian diversity recorded from the state. This includes new distribution records for 16 snake species with observations on rare species: *Smithophis attemporalis*, *Smithophis bicolor*, and *Boiga quincunciata*.

Keywords: Indo-Burma biodiversity hotspot, herpetofauna, Mizoram, natural history, northeastern India, snakes.

Abbreviations: DTR—Dampa Tiger Reserve | TR—Tiger Reserve | WS—Wildlife Sanctuary | SVL—Snout Vent Length | TL—Tail Length | IB—Inspection Bungalow.

Mizo abstract: Kum 2021 March leh September thla a Dampa Tiger Reserve—a survey neih atangin reptilian fauna (bawkvak chi – rul, laiking lam chi, satel) awrn te chhinchhiah belhna tarlan a ni. He zirchianna ah hian reptile chi hrang hrang 33 hmuh a ni a, hei hi Mizoram atanga reptilian diversity record zawng zawng atanga 27% vel a ni. He survey atang hian rul chi hrang 16 te a wawikhat nan Dampa Tiger Reserve atanga chhinchhiah thar a ni a, hmun dang a hmuh tur tam lem lo: *Smithophis attemporalis*, *Smithophis bicolor*, leh *Boiga quincunciata* te an tel a ni.

Editor: S.R. Ganesh, Chennai Snake Park, Chennai, India.

Date of publication: 26 October 2022 (online & print)

Citation: Malsawmdawngiana, B. Boruah, N.G. Patel, S. Lalronunga, I. Zosangliana, K. Lalhmangaiha & A. Das (2022). An updated checklist of reptiles from Dampa Tiger Reserve, Mizoram, India, with sixteen new distribution records. *Journal of Threatened Taxa* 14(10): 21946-21960. <https://doi.org/10.11609/jott.8004.14.10.21946-21960>.

Copyright: © Malsawmdawngiana et al. 2022. Creative Commons Attribution 4.0 International License. JoTT allows unrestricted use, reproduction, and distribution of this article in any medium by providing adequate credit to the author(s) and the source of publication.

Funding: The present study is a part of ongoing project funded by SERB-DST, Government of India vide grant no. CRG/2018/000790.

Competing interests: The authors declare no competing interests.

Author details: MALSAWMDAWNGIANAIS currently enrolled as a PhD student in the Dept. of Environmental Science, Mizoram University. He did his MSc in the Heritage Conservation and Management Course from the Wildlife Institute of India. His research interests lie in the ecology of lesser known herpetofauna of India with special reference to northeastern India. BITUPAN BORUAH is researcher at WII and currently pursuing PhD. NAITIK PATEL is PhD student at WII and he has done MSc in Zoology from the Maharaja Sayajirao University of Baroda. His work has focused on the ecology and systematics of stream frogs of Indian Himalayan Region. SAMUEL LALRONUNGA is a postdoctoral researcher at department of zoology, Mizoram University. His research interest lies in the systematics of ichthyofauna and herpetofauna of India with special reference to northeastern India. Isaac Zosangliana is a naturalist who developed his interest in the field of herpetology. K. LALHMANGAIHA is a naturalist who developed his interest in the field of herpetology. ABHIJIT DAS is a faculty in the department of Endangered Species Management at Wildlife Institute of India, Dehradun (WII).

Author contributions: All the authors contributed in the field study; AD conceived and designed the study; Malsawmdawngiana and BB studied the specimens; M wrote the manuscript draft; AD, BB and SL studied, reviewed and edited the manuscript drafts; all authors approved the final draft.

Acknowledgements: We thank: the Department of Environment, Forest and Climate Change, Govt. of Mizoram for issuing research permit (B.19060/5/2020-CWLW); Mr. Debanjan Sarkar and Mr. Navaneeth for helping us in making the map and photo plates; the wildlife guards of Dampa TR who helps and guided us throughout the survey.



INTRODUCTION

Mizoram is the southernmost state in northeastern India and is a part of the Indo-Burma biodiversity hotspot (Pawar & Birand 2001; Mittermeier et al. 2004). The geographic location lies between 23.3875–23.7055 °N & 92.2736–92.4319 °E and the tropic of cancer passes through the state. Low to mid-elevation hill slopes with extensive forested tracts are contributing factors to its native biodiversity. The reptilian diversity of the state so far comprises more than 60 species of snakes (Talukdar & Sanyal 1978; Pawar & Birand 2001; Mathew 2007; Lalremsanga et al. 2011; Lalremsanga & Lalronunga 2017; Vogel et al. 2017, 2020; Ashaharrraza et al. 2019; Giri et al. 2019a; Lalbiakzuala & Lalremsanga 2019a,b, 2020; Das et al. 2021; Lalronunga et al. 2021a,b) and 41 species of lizards (Pawar & Birand 2001; Harit & Ramanujan 2002; Mathew 2007; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015; Giri et al. 2019b; Muansanga et al. 2020; Purkayastha et al. 2021, 2022; Lalremsanga et al. 2022). However, systematic herpetofauna reports from the protected areas of the state are only partially available: Nengpui Wildlife Sanctuary (Pawar & Birand 2001) and Dampa Tiger Reserve (Pawar & Birand 2001; Lalrinchhana et al. 2015; Decemson et al. 2020). We herein address the hitherto unknown reptilian species richness of Dampa Tiger Reserve and present an updated checklist on the reptile fauna.

METHODS

Study area

Dampa Tiger Reserve (hereafter DTR) is located in Mamit District of Mizoram along the Bangladesh border (Figure 1). It is situated at the western limit of the state, and falls within 23.54–23.69 °N & 92.22–92.45 °E. The natural vegetation of the area is tropical evergreen to semi-evergreen, corresponding to the Cachar tropical evergreen 1B/C3 and semi-evergreen 2B/C2 forest (Champion & Seth 1968). The elevation ranges 250–1,100 m with an average precipitation of 2,150 mm, mainly from the south-west monsoon from May to December (Raman et al. 1998). The area has one of the last remaining natural low- to mid-elevation forests in western Mizoram (FSI 1999). DTR is drained by two drainage systems: Karnaphuli and Barak. The Karnaphuli drainage consists of Aivapui, Keisalam, Seling, and Mar rivers and the Barak drainage consists of Teirei and Tut rivers (Lalramliana et al. 2020).

The study was carried out in the two forest ranges,

Phuldungsei and Teirei. In the Phuldungsei range, surveys were done along the Saithah to Phuldungsei road (~5 km) and in the Teirei range, surveys were carried out along the Teirei to Damparengpui village road (~3 km). Both the road segments form the boundary between the core and buffer of DTR. We employed stratified random sampling along possible habitats such as torrent streams, dry streambeds, roadside vegetation, ponds, agriculture fields, and oil palm plantations for species inventory (Image 5).

Data collection

The data for this paper was collected from 23 to 27 March and 12 to 16 September 2021. Visual encounter surveys (Crump & Scott 1994) and opportunistic searches were deployed to assess the reptilian diversity during the survey period. Data on road-killed specimens found during the survey period were also recorded. Collected specimens were fixed in 10% formaldehyde solution and then transferred to 70% ethanol solution for longer preservation. All collected specimens were deposited at the Reptile and Amphibians Repository, Wildlife Institute of India, Dehradun, Uttarakhand, India.

RESULTS

In the present study, 10 species of lizards from four families and eight genera; 23 species of snakes from seven families and 16 genera were documented. Among the 33 species of reptiles, one species is Near Threatened, one species is Data Deficient and the rest are Least Concern or Not Evaluated as per the IUCN Red List.

Species Accounts

Class: Reptilia

Order: Squamata

Family: Agamidae

1. Emma Gray's Forest Lizard *Calotes emma* Gray, 1845

Materials examined: WII-ADR 1112, Female, SVL 93.3 mm; TL 255 mm. Image 1A.

Supraocular spine on each side, over the ears; neck with an oblique (blackish) fold on each side in front of the shoulders. This description agrees well with Gray (1845). We encountered an individual roosting at approximately 1.5 m above the ground among the roadside vegetation on 12 September at around 1845 h. Another individual was observed at 1130 h foraging on a roadside bamboo groove ~2 m above ground.

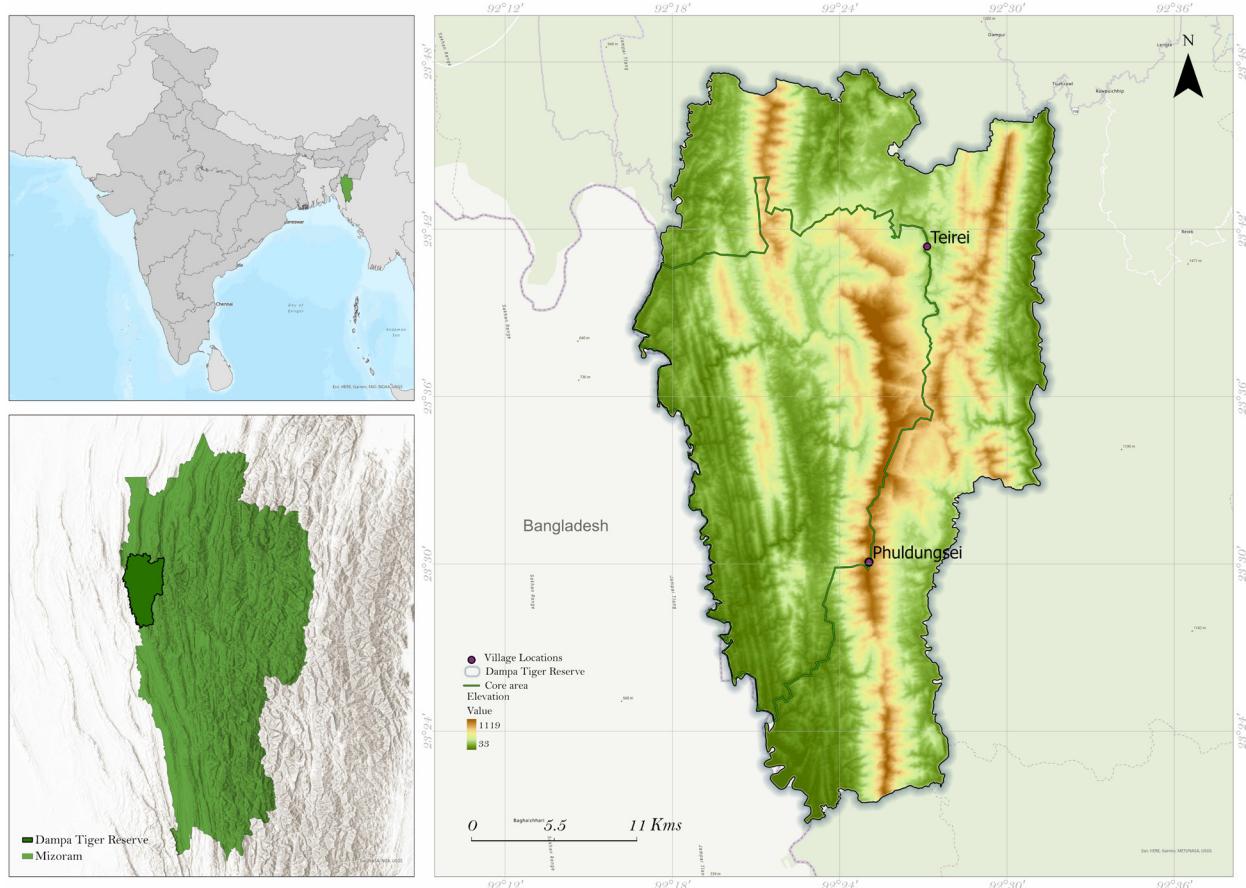


Figure 1. Map of Dampa Tiger Reserve highlighting the two range headquarter village viz., Teirei Village and Phuldungsei village.

Manthey (2008) depicted diverse morphotype of the *Calotes emma* (sensu lato) from China, Laos, Thailand, and Vietnam. The Mizoram population agrees well in live colouration with the population from Assam reported by Das et al. (2009).

In Mizoram, this species was recorded from Ngengpui WS, DTR, and Aizawl (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015).

2. Irawadi Forest Lizard *Calotes cf. irawadi* Zug, Brown, Schulte & Vindum, 2006

Materials examined: WII-ADR 1103 and WII-ADR 1111, both Female, SVL 62.5 mm & 97.8 mm; TL 180 mm & 270 mm. Image 1B.

Scales on neck and supra-axillary region oriented obliquely; supratympanic spines are half or less than the diameter of tympanum (Zug et al. 2006). Das et al. (2009) provisionally reported the species from adjoining Barail WS. Lalrinchhana. Solanki (2015) also provisionally reported the species from Dampa TR. The individuals were frequently encountered roosting on shrub along forest trail about 1.5 m above the ground during our survey on 12 September 2021 at around 2138 h.

Previously *C. versicolor* was reported from Ngengpui WS, DTR, Aizawl, Hmuifang (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015). *Calotes cf. irawadi* from DTR (Lalrinchhana & Solanki 2015). However, after Gowande et al. (2021), the validity of these records needs to be investigated.

3. Smooth-scaled Mountain Lizard *Cristidorsa planidorsata* (Jerdon, 1870)

Materials examined: WII-ADR 1071 and WII-ADR 1072, both Females, SVL 38.4 mm & 52 mm; TL 65 mm & 80 mm. Image 1C.

Flat dorsum; no nuchal or dorsal crest; a double series of slightly enlarged keeled scales; series of angularly bent larger scales. The description agrees with Jerdon (1980). The individuals were encountered roosting on shrub along a forest trail at around 0.5 m above the ground on 12 Sept 2021 at around 1900 h.

In Mizoram, this species was previously reported from DTR, Hmuifang (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015).

4. Green Fan-Throated Lizard *Ptyctolaemus gularis* (Peters, 1864)

Materials examined: WII-ADR 1152, Female, SVL 69.5 mm; TL 160 mm. Image 1D.

Body slender; with a pointed head; bluish gular pouch folded in U shape. The description agrees with Das & Das (2017). The individual was spotted on a tall isolated tree at about 2 m in a bamboo patch. When approached, the individual showed circulating movement in the tree going upwards on 16 September 2021 at around 1300 h. Liu et al. (2021) recently described *Ptyctolaemus chindwinensis* from Htamanthi Wildlife Sanctuary, Sagaing Division, Myanmar. Our specimen differs from *P. chindwinensis* in having three long bluish-black stripes which occupy most portions of the gular pouch.

In Mizoram, this species was previously reported from Ngengpui WS, DTR, Aizawl (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015).

Family: Gekkonidae

5. Jampui Bent-toed Gecko *Cyrtodactylus montanus* Agarwal, Mahony, Giri, Chaitanya, and Bauer 2018

Materials examined: WII-ADR 1077, Male, SVL 57.6 mm; TL 58 mm. Image 1E.

Dorsal coloration consisting of thick dark reticulations enclosing lighter blotches; the tail had alternating dark and lighter bands. This description agrees with Agarwal et al. (2018). We encountered the individual roosting on a shrub from a forest trail at around 0.5 m above ground on 15 September 2021 at around 1900 h. Another individual was also encountered on a wall of a small concrete roadside drain at around 2230 h.

In Mizoram, this species was previously reported from DTR (Lalmuansanga et al. 2020).

6. Tokay Gecko *Gekko gecko* (Linnaeus, 1758)

Materials examined: WII-ADR 1114, Juvenile, SVL 59.1 mm; TL 55 mm. Image 1F.

Reddish spots on a greyish dorsum; tubercles present on ventrolateral folds. This description agrees with Das



Image 1. Some saurian fauna of Dampa Tiger Reserve: A—*Calotes emma* | B—*Calotes irawadi* | C—*Cristidorsa planidorsata* | D—*Ptyctolaemus gularis* | E—*Cyrtodactylus montanus* | F—*Gekko gecko* | G—*Hemidactylus platyurus* | H—*Hemidactylus frenatus* | I—*Varanus salvator* with *Zhangixalus smaragdinus*. © Abhijit Das (A-H), Malsawmdawngliana (I).

& Das (2017). The calls of *G. gecko* were frequently heard from the buildings in the Forest IB Complex and nearby forests. Many juveniles and one adult were observed from the Forest IB Complex during the survey every night.

In Mizoram, this species was previously reported from Ngengpui WS, DTR, Aizawl (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015).

7. Flat-tailed House Gecko *Hemidactylus platyurus* (Schneider, 1792)

Materials examined: WII-ADR 1069 (Male). SVL 52.8 mm; TL 55 mm. Image 1G.

Body colour variable; brown to grey; with smooth dorsal scales; tail dorso-ventrally flattened with serrated edges. This description agrees with Das & Das (2017). We encountered one individual on a wall of Phuldungsei Forest IB Complex on 12 September 2021 at around 1900 h.

In Mizoram, this species was previously reported from Ngengpui WS, DTR, Aizawl (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015)

8. Common House Gecko *Hemidactylus frenatus* Duméril & Bibron, 1836

Materials examined: Not collected, unsexed, not measured. Image 1H.

Smooth dorsal scales; round tail bearing rings of enlarged tubercles. This agrees with the description in Das & Das (2017). We encountered the species on the wall of the guest house at the Phuldungsei Forest IB Complex on 12 September 2021 at around 1830 h.

In Mizoram, this species was previously reported from Ngengpui WS, DTR, Aizawl and Hmuifang (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015).

Family: Scincidae

9. Spotted Forest Skink *Sphenomorphus maculatus* (Blyth, 1853)

Materials examined: WII-ADR 1109, Male, SVL 31.3 mm; TL 45 mm.

Bronze dorsum and dark flanks lightly speckled with white; having two series of black spots on the side of the body. The morphological description agrees with Das & Das (2017). During night sampling a few individuals were sighted along a forest trail and one individual was encountered in a dry drain filled with leaf litter on 12 September 2021 between 2130 and 2200 h.

In Mizoram, this species was previously reported from Ngengpui WS, DTR, Aizawl, Hmuifang (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015)

Family: Varanidae

10. Water Monitor Lizard *Varanus salvator* (Laurenti, 1768)

Materials examined: None, Image 1I

Triangular head; snout elongated and flat. One individual was photographed hiding in a rock crevice along with a Large Green Frog *Zhangixalus smaragdinus* in Teirei stream near Lallen village on 24 March 2021 at around 1930 h. The species was identified as *V. salvator* from the photograph based on characters such as nostril closer to the snout and distinctly enlarged supraocular scales (Koch et al. 2013).

In Mizoram, this species was previously reported from Ngengpui WS, DTR (Pawar & Birand 2001; Lalrinchhana et al. 2011; Lalrinchhana & Solanki 2015).

Suborder: Serpentes

Family: Natricidae

1. Wall's Keelback *Herpetoreas xenura* (Wall, 1907)

Materials examined: WII-ADR 1158, Male, SVL 480 mm; TL 185 mm. Image 2A.

Subcaudals single; nostrils lateral; internasals truncated; supralabials largely light. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having dorsal rows 19:19:17, ventrals 162 and 99 (single) subcaudals. We encountered an individual on the streambed along the road on 16 September 2021 at around 2145 h.

In Mizoram, this species was previously reported from DTR, Sihhmu, Tamdil, Aizawl district, Reiek Community Reserved Forest (Pawar & Birand 2001; Das 2010; Lalremsanga et al. 2011, 2014; Hmar et al. 2020)

2. Khasi Hills Keelback *Hebius khasiensis* (Boulenger, 1890)

Materials examined: WII-ADR 1104, Female, SVL 350 mm; TL 50 mm. Image 2B.

19 dorsal scales round the mid body (19:19:17) with first dorsal scale row keeled; nine supralabials which are cream coloured with dark edges. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having dorsal scale rows 19:19:17; ventral 154; subcaudals 34 (paired). We encountered the individual on a streambed upon turning a rock in a small stream that flows along the road on 15 September 2021 at around 2030 h.

In Mizoram, this species was previously only reported from Reiek Community Reserved Forest (Hmar et al. 2020).

3. Red-necked Keelback *Rhabdophis helleri* (Schmidt, 1925)

Materials examined: WII-ADR 1151, female and WII-ADR 1155, male; SVL 490 mm & 365 mm; TL 160 mm & 105 mm, respectively. Image 2C.

Olive green dorsum; reddish neck. Some individuals having a tear drop mark below the eye. The individual agrees with the description of *R. helleri* in having 19:19:17 dorsals scale rows; ventrals 164, 166, 84, & 91 paired subcaudals (David & Vogel 2021). One individual was encountered roosting on a shrub at about 2 m from the ground along a forest trail near Teirei Forest IB complex on 16 September 2021 at around 1930 h. Another individual was encountered on the same night under a rock from a stream flowing along the road at around 2130 h.

The species was previously identified as *R. subminiatus* with two subspecies. After David & Vogel (2021), the northeastern Indian populations of the species conferred to *R. helleri*.

In Mizoram, this species was previously reported from Ngengpui WS, DTR, all districts of Mizoram, Reiek Community Reserved Forest (Pawar & Birand 2001; Lalremsanga et al. 2011; Hmar et al. 2020).

4. Orange-collared Keelback *Rhabdophis himalayunus* (Gunther, 1864)

Materials examined: WII-ADR 1116, Female, SVL 550

mm; TL 185 mm. Image 2D.

Olive-brown dorsum; anterior part of dorsum with whitish checkering; posteriorly dorsolateral series of small yellowish or cream spots present. Neck with a cream or pinkish collar which is broad in the middle, many dorsal scales edged with white and sky blue colour. Small black bars from the eye to the labials and one large bar from behind the eye to the angle of mouth, ventral with light mottling that increases posteriorly. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having a dorsal scale rows 17:19:17; ventrals 158; subcaudals 86 (paired). We encountered the individual roosting on roadside vegetation at about 0.5m from ground on 13 September 2021 at around 2130 h. A *Xenophrys* sp. frog was recovered from the gut of this individual.

In Mizoram, this species was previously reported from Champhai and Mamit districts (Lalremsanga et al. 2011).

5. Brown Rain Snake *Smithophis bicolor* (Blyth, 1854)

Materials examined: WII-ADR 1107, Female, SVL 590 mm; TL 150 mm. Image 2E.

The individual agrees with description in Das (2010), Lalremsanga & Lalronunga (2017), and Giri et al. (2019) in having dorsal 17:17:17; ventral 194; subcaudals 64 (paired). We encountered the individual in a dry stream



Image 2. Some ophidian fauna of Dampa Tiger Reserve: A—*Herpetoreas xenura* | B—*Hebius khasiensis* | C—*Rhabdophis helleri* | D—*Rhabdophis himalayunus* | E—*Smithophis bicolor* | F—*Smithophis atemporalis*. © Abhijit Das (A-E), Malsawmdawngliana (F).

bed under rocks on 14 September 2021 at around 2035 h. Another individual was encountered on the same night in a streambed, but it disappeared tunneling through the pebbles in the stream.

In Mizoram, this species was previously reported from Mizoram university campus, Lunglei, Saiha, Aizawl district, Reiek Community Reserved Forests (Das 2010; Lalremsanga et al. 2011; Hmar et al. 2020).

**6. Mizo Rain Snake *Smithophis atemoralis*
Giri, Gower, Das, Lalremsanga, Lalronunga, Captain & Deepak, 2019**

Materials examined: WII-ADR 1068, Male, SVL 315 mm; TL 175 mm. Image 2F.

Without temporal scales. The individual agrees with the description in Giri et al. (2019) in having dorsal scale rows 17:17:17; ventral 195; subcaudals 82 (paired). We encountered the individual on a side drain at about ~2 km from West phaileng village near watershed on 12 September 2021 at around 1530 h.

In Mizoram, this species was previously reported from Mizoram University Campus, Aizawl (Type locality) by Giri et al. (2019).

Family: Colubridae

7. Tawny Cat Snake *Boiga ochracea* (Theobald, 1868)

Materials examined: WII-ADR 1156 (Male) and WII-ADR 1157 (Female), SVL 620 mm & 700 mm; TL 170 mm & 180 mm. Image 3A.

Dorsum without pattern or with faint dark transverse dorsolateral bands on yellowish-brown or reddish-brown ground. The individual agrees with description in Das (2010) and Lalremsanga & Lalronunga (2017) in having dorsal 19:19:15; ventral 222-241; subcaudals 96-107 (paired). We encountered the individual active along a roadside vegetated slope 2 m from ground 16 September 2021 at around 2100 h. Another individual was encountered on the same night at 2200 h on vegetation, 2 m above ground along a roadside stream.

In Mizoram, this species was previously reported from Tamdil, Pachhunga University campus, Reiek Community Reserved Forests (Das 2010; Lalremsanga et al. 2011, 2014; Hmar et al. 2020).

8. Assamese Cat Snake *Boiga quincunciata* (Wall, 1908)

Materials examined: WII-ADR 1115, Male, SVL 1080 mm; TL 335 mm. Image 3B.

Dorsal pattern consists of fine dark brown spots and a vertebral series of dark brown; white edged blotches on yellowish or greyish-brown ground. The individual agrees with the description in Das (2010) and

Lalremsanga & Lalronunga (2017) in having dorsal scale rows 19:19:15; ventral 254; subcaudals 128 (paired). We encountered the individual along a thick forested slope by roadside during our survey at about 0.5 m from ground on 13 September 2021 at around 2200 h.

In Mizoram, this species was previously reported from Aizawl districts (Lalremsanga et al. 2011).

9. Gunther's Kukri Snake *Oligodon cf. cinereus* (Gunther, 1864)

Materials examined: WII-ADR 1106, Female, SVL 445 mm; TL 70 mm. Image 3C.

Head shields finely spotted with black; no typical head marking. Anteriorly ventral scales with squarish black spots on outer edge. Posteriorly ventral almost dark; subcaudals also heavily spotted with black; 46 narrow irregular black crossbars on dorsum that develops from the dorsal scales edged with black; three bands on top of tail. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having dorsal scale rows 17:17:15; Ventral 173; Subcaudals 42 (paired). We encountered the individual from a loose rocky crevice along streamside during the survey on 14 September 2021 at around 2230 h.

In Mizoram, this species was previously reported from Ngengpui WS, Tamdil, Siaha, Reiek Community Reserved Forests (Pawar & Birand 2001; Das 2010; Lalremsanga et al. 2011; Hmar et al. 2020).

10. Gray's Kukri Snake *Oligodon dorsalis* (Gray, 1834)

Materials examined: Road-killed Specimen, unsexed, not measured.

Completely red subcaudals. The individual agrees with description in Das (2010) and Lalremsanga & Lalronunga (2017). We encountered a road killed individual on the road between Saithah and Phuldungsei village on 13 September 2021 at around 1100 h.

In Mizoram, this species was previously reported from Aizawl district and Reiek Community Reserved Forests (Lalremsanga et al. 2011; Hmar et al. 2020).

11. Zaw's Wolfsnake *Lycodon zawi* Slowinski, Pawar, Win, Thin, Gyi, Oo & Tun, 2001

Materials examined: Not collected, Unsexed, Not measured. Image 3D.

Brownish-black dorsal with narrow white cross bars best marked anteriorly; neck without any band, first band appear two head length behind. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017). We encountered the individual active on the bank of the Tuichar stream and left after photographing it on 27 March 2021 at around 2030 h.

In Mizoram, this species was previously reported from



Image 3. Some ophidian fauna of Dampa Tiger Reserve: A—*Boiga ochracea* | B—*Boiga quincunciata* | C—*Oligodon cf. cinereus* | D—*Lycodon zawi* | E—*Dendrelaphis proarchos* | F—*Dendrelaphis cyanochloris* | G—*Ahaetulla flavescens* | H—*Psammodynastes pulverulentus*. © Abhijit Das (A-H).

Ngengpui WS, Keifang, DTR, Aizawl and Saiha districts, Pachhunga University Campus, Reiek Community Reserved Forests (Pawar & Birand 2001; Slowinski et al. 2001; Lalremsanga et al. 2011; Dutta et al. 2013; Hmar et al. 2020).

12. White-banded Wolfsnake *Lycodon septentrionalis* (Günther, 1875)

Materials examined: Roadkill specimen, unsexed, not measured.

Purplish-black dorsum with narrow transverse white bands and a white venter. The individual agrees with description in Biakzuala et al. (2020). We came across a road killed individual on the road near Teirei Forest IB Complex on 15 September 2021 at around 1930 h.

In Mizoram, this species was previously reported from Bhumtilong (= Bungtlang), Sawleng, Aizawl, Mamit, Khawbung, Thenzawl, Pangzawl, Khawrihnim, Dampui (Taklukdar & Sanyal 1978; Lalbiakzuala et al. 2020).

13. Painted Bronzeback Treesnake *Dendrelaphis proarchos* Wall, 1909

Materials examined: WII-ADR 1102, Female, SVL 275 mm; TL 115 mm. Image 3E.

Bronze coloured dorsal, distinct cream dorso-lateral lines cover half of the outermost row and the half of the scale row above it. The individual agrees with the description in Lalremsanga & Lalronunga (2017) and Lalbiakzuala et al. (2022) in having dorsal scale rows 15:15:11; ventral 193; subcaudals 150 (paired). We encountered the individual roosting on grass at about 0.2 m from ground on 14 September 2021 at around 2145 h.

Vogel & van Rooijen (2011) revalidated the

occurrence of *D. proarchos* in northeast India and Biakzuala et al. (2022) reassessed the systematics of *Dendrelaphis* from Mizoram, northeastern India and removed all the records of *D. pictus* and replaced it with *D. proarchos*.

In Mizoram, this species was previously reported from Ngengpui WS, Aizawl, Aizawl district, Sialsuk, Tanhril, Mizoram University Campus, Sateek, Leng, Khawzawl, Maubuang, Kepran, Tlangnuam, Buangpui, Durtlang, Khawlailung, Reiek, Phura, DTR, Thenhlum, and Sailam (Pawar & Birand 2001; Das 2010; Lalremsanga et al. 2011; Lalbiakzuala et al. 2022).

14. Wall's Bronzeback Treesnake *Dendrelaphis cyanochloris* (Wall, 1921)

Materials examined: WII-ADR 1117 (Female), SVL 760 mm; TL 330 mm. Image 3F.

Bronze coloured dorsal; a black temporal stripe starts behind the eye; covers the whole temporal region and extends onto the neck; ventrals and subcaudals greenish. The individual agrees with the description in Slowinski et al. (2001), Das (2010), and Lalremsanga & Lalronunga (2017) in having dorsal scale rows 15:15:11; ventral 206; subcaudals 142 (paired). We encountered the individual roosting on overhanging vegetation above road about 2 m from the ground on 14 September 2021 at around 2230 h.

In Mizoram, this species was previously reported from Tamdil, Aizawl and Kolasib districts, Reiek Community Reserved Forest (Lalremsanga et al. 2011, 2014; Hmar et al. 2020).

15. Short-nosed Vinesnake *Ahaetulla flavescens* (Wall, 1910)

Materials examined: not collected (unsexed). Image 3G.

Snout lacking pointed dermal appendage. The individual agrees with the description in Das (2010), Lalremsanga & Lalronunga (2017) and Srikanthan et al. (2022). We encountered an individual roosting on a *Mesua ferra* tree about 10 m from the ground inside Teirei Forest IB complex on 12 September 2021 at around 2030 h.

In Mizoram, this species was previously reported from Aizawl, Ngengpui WS, Tamdil, Aizawl and Mamit districts (Pawar & Birand 2001; Lalremsanga et al. 2011, 2014).

Earlier this species was reported as *Ahaetulla prasina* from northeast India. Srikanthan et al. (2022) recently reevaluated the taxonomic identity of the northeast Indian populations of the species as *A. flavescens*.

16. Mock Viper *Psammodynastes pulverulentus* (Boie, 1827)

Materials examined: WII-ADR 1105 (Female), SVL 360 mm; TL 90 mm. Image 3H.

Brownish dorsal, scales edged with black, head with 3–4 indistinct bars, dorso-laterally three closely arranged lined and with yellowish spots. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having dorsal scale rows 17:17:15; ventral 160; subcaudals 67 (paired). We encountered the individual roosting on roadside vegetation between Saithah and Phuldungsei on 13 September 2021 at around 1945 h.

In Mizoram, this species was previously reported from Ngengpui WS, DTR, Aizawl & Champhai districts, Reiek Community Reserved Forest (Pawar & Birand 2001; Das 2010; Lalremsanga et al. 2011; Hmar et al. 2020).

17. Large-eyed False Cobra *Pseudoxenodon macrops* (Blyth, 1855)

Materials examined: WII-ADR 1101, Female, SVL 245 mm; TL 60 mm. Image 4A.

Reddish-brown or olive brown dorsal in colour; indistinct, small transverse bars on dorsum, Labials edged with faint black bars; labial and chin region whitish. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having dorsal scale rows 19:17:15; ventral 153; subcaudals 69 (paired). We encountered the individual active of slope along the side of a stream on 13 September 2021 at around 1300 h and it tried to hide when encountered.

In Mizoram, this species was previously reported from Tamdil, Aizawl district, Reiek Community Reserved Forests (Das 2010; Lalremsanga et al. 2011; Hmar et al. 2020).

18. Assam Snail Eater *Pareas monticola* (Cantor, 1839)

Materials examined: WII-ADR 1076, Female, SVL 360 mm; TL 115 mm. Image 4B.

Yellowish dorsum with series of irregular edged black bars on the two side of mid dorsal line, top of head heavily spotted with black but the mottling is defined within an arrow-head shaped space. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having dorsal scale rows 15:15:15; ventral 192; subcaudals 81 (paired). We encountered the individual on a tree branch above stream at about 5 m from the ground on 14 September 2021 at around 2030 h. Another individual was encountered on the same night on a branch on a roadside vegetation slope at about 1 m from the ground.

In Mizoram, this species was reported from Aizawl, Tamdil, Kolasib district, Reiek Community Reserved Forests (Das 2010; Lalremsanga et al. 2011, 2014; Hmar et al. 2020).

Family: Elapidae

19. Monocled Cobra *Naja kaouthia* Lesson, 1831

Materials examined: Not collected (Unsexed). Image 4C.

Hood markings usually distinct, usually a pale, oval or circular marking, with a dark center and occasionally a narrow dark outer border. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017). We encountered an adult individual during a day trek towards Dampatlang on 5 March 2021 at around 1300 h. The individual was photographed on the spot and left in the area.

In Mizoram, this species was previously reported from Ngengpui WS, Mizoram University Campus, Tamdil, All districts of Mizoram, Reiek Community Reserved Forest (Pawar & Birand 2001; Das 2010; Lalremsanga et al. 2011, 2014, Hmar et al. 2020).

20. Banded Krait *Bungarus fasciatus* (Schneider, 1801)

Materials examined: Not collected (Unsexed). Image 4D.

Black and yellow banded snake with blunt tail. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017). We encountered the individual active on a thick vegetated slope along a road near Teirei Forest IB Complex on 15 September

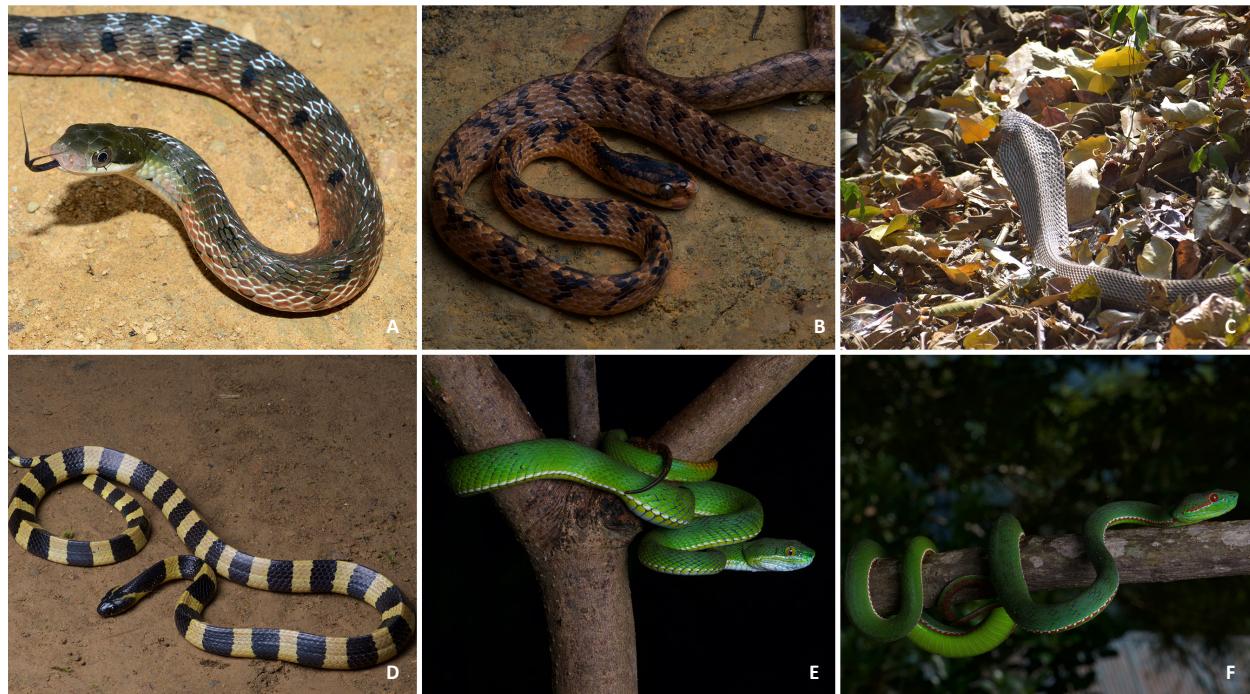


Image 4. Some Ophidian of Dampa Tiger Reserve: A—*Pseudoxenodon macrops* | B—*Pareas monticola* | C—*Naja kaouthia* | D—*Bungarus fasciatus* | E—*Trimeresurus erythrurus* | F—*Trimeresurus popeiorum*. © Samuel Lalronunga (A), Abhijit Das (B, D-F), C. Mazuala (C).

2021 at around 2000 h. The snake displayed head hiding behavior while being photographed in day light.

In Mizoram, this species was previously reported from Ngengpui WS, Aizawl district, Champhai district, Kolasib district, Mamit district, Reiek Community Reserved Forests (Pawar & Birand 2001; Das 2010; Lalremsanga et al. 2011; Hmar et al. 2020).

Family: Viperidae

21. Spot-tailed Pit Viper *Trimeresurus erythrurus* (Cantor, 1839)

Materials examined: WII-ADR 1119, Male, SVL 510 mm; TL 115 mm. Image 4E.

Dorsal greenish in colouration, eyes yellow; tongue dark brown; ventral yellowish-white; top of tail uninterrupted reddish in colour. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having Dorsal scale rows 25:25:19; ventral 167; subcaudals 65 (paired). We encountered five individuals of this species during the survey on saplings and tree branches along forest trails, and vegetation slopes on roadsides and on roads.

In Mizoram, this species was previously reported from Bhumtilang (= Bungtlang), All districts of Mizoram, Reiek Community Reserved Forest (Talukdar & Sanyal 1978; Lalremsanga et al. 2011; Hmar et al. 2020).

22. Pope's Pit Viper *Trimeresurus popeiorum* Smith, 1937

Materials examined: WII-ADR 1120, Male, SVL 560 mm; TL 140 mm. Image 4F.

Eyes red, background colour is uniformly green, red ventrolateral stripe below and white stripe above in males, well defined white stripe in females; the ventrolateral stripe become broken down into blotches alongside of the tail. The individual agrees with the description in Lalremsanga & Lalronunga (2017) in having dorsal 23:21:19; ventral 166; subcaudals 70 (paired). This species was quite common in the study area, we encountered >10 individuals along roadside vegetation, saplings on forest trails and a female individual in an ambush position in a small guava tree near the guest house in Phuldungsei IB complex.

In Mizoram, this species was previously reported from Aizawl and Mamit district (Lalremsanga et al. 2011). Pawar & Birand (2001) reported *Trimeresurus* cf. *stejnegeri* from DTR which supposedly would be a misidentification of *T. popeiorum*.

Family: Typhlopidae

23. Diard's Blindsnake *Argyrophis diardii* (Schlegel, 1839)

Materials examined: WII-ADR 1067, Female, SVL 32.5 mm; TL 4 mm.



Image 5. Some habitats of reptiles in Dampa Tiger Reserve: A—Dry Streambed | B—Mature Forest | C—Road and roadside vegetation | D—Bamboo grove. © Abhijit Das A-D)

Shiny blackish brown dorsum, on the neck and anterior part of body nine to ten dorsal scale rows are dark brown and shiny, little paler below, the two colours are not sharply contrasted. The individual agrees with the description in Das (2010) and Lalremsanga & Lalronunga (2017) in having a mid-row dorsal scale of 28. We encountered a fresh dead individual on the road in West Phaileng village on 12 September 2021 at around 1500 h.

In Mizoram, this species was previously reported from Tamdil, Sihmu, Aizawl & Saiha district, Reiek

Community Reserved Forest (Das 2010; Lalremsanga et al. 2011, 2014; Hmar et al. 2020).

DISCUSSIONS

The first attempt to document the herpetofauna of DTR was made about two decades ago (Pawar & Birand 2001). That study recorded 22 species of amphibians, 16 species of lizards, seven species of snakes, and four species of cheloneans from DTR.

Table 1. Annotated checklists of reptiles of Dampa Tiger Reserve. * represents the first record of the species from DTR.

Family	Species	Pawar & Birand (2001)	Lalrinchhana & Solanki (2015)	Lalmuansanga et al. (2020)	Vanlalchhuana et al. (2016)	Biakzuala et al. (2020)	Present study
AGAMIDAE							
	<i>Calotes emma</i>	✓	✓				✓
	<i>Calotes versicolor</i>	✓	✓				✓
	<i>Calotes cf. irawadi</i>		✓				
	<i>Draco maculatus</i>	✓	✓				
	<i>Draco</i> sp. (cf. <i>blandfordii-norvillii</i>)	✓					
	<i>Cristidorsa planidorsata</i>	✓	✓				✓
	<i>Ptyctolaemus gularis</i>	✓	✓				✓
GEKKONIDAE							
	<i>Hemidactylus platyrus</i>	✓	✓				✓
	<i>Hemidactylus brookii</i>		✓				
	<i>Hemidactylus frenatus</i>	✓	✓				✓
	<i>Hemidactylus garnotii</i>		✓				
	<i>Hemidactylus</i> sp.		✓				
	<i>Cyrtodactylus</i> sp.		✓				
	<i>Cyrtodactylus montanus</i>			✓			✓
	<i>Gecko gecko</i>	✓	✓				✓
SCINCIDAE							
	<i>Eutropis macularia</i>	✓	✓				
	<i>Eutropis multifasciata</i>	✓	✓				
	<i>Eutropis</i> sp.	✓					
	<i>Tropidophorus assamensis</i>	✓	✓				
	<i>Sphenomorphus maculatus</i>	✓	✓				✓
	<i>Sphenomorphus indicus</i>		✓				
LACERTIDAE							
	<i>Takydromus sexlineatus</i>	✓	✓				
VARANIDAE							
	<i>Varanus benghalensis</i>	✓	✓				
	<i>Varanus salvator</i>		✓				✓
NATRICIDAE							
	<i>Herpetoreas xenura</i>	✓					✓
	<i>Hebius khasiensis</i>						✓*
	<i>Rhabdophis helleri</i>	✓					✓
	<i>Rhabdophis</i> cf. <i>himalayanus</i>						✓*
	<i>Smithophis bicolor</i>						✓*
	<i>Smithophis atemporalis</i>						✓*
	<i>Fowlea piscator</i>	✓					
COLUBRIDAE							
	<i>Boiga ochracea</i>						✓*
	<i>Boiga quinquiniata</i>						✓*
	<i>Ahaetulla flavescens</i>						✓*
	<i>Oligodon</i> cf. <i>cinereus</i>						✓*
	<i>Oligodon dorsalis</i>						✓*

Family	Species	Pawar & Birand (2001)	Lalrinchhana & Solanki (2015)	Lalmuansanga et al. (2020)	Vanlalchhuana et al. (2016)	Biakzuala et al. (2020)	Present study
	<i>Lycodon zawi</i>	✓					✓
	<i>Lycodon septentrionalis</i>					✓	✓
	<i>Dendrelaphis cyanochloris</i>						✓*
	<i>Dendrelaphis proarchos</i>						✓
	<i>Psammodynastes pulverulentus</i>	✓					✓
	<i>Ptyas korros</i>	✓					
PSEUDOXENODONTIDAE							
	<i>Pseudoxenodon macrops</i>						✓*
PAREIDAE							
	<i>Pareas monticola</i>						✓*
ELAPIDAE							
	<i>Naja kaouthia</i>						✓*
	<i>Bungarus fasciatus</i>						✓*
	<i>Ophiophagus hannah</i>				✓		
VIPERIDAE							
	<i>Trimeresurus popeiorum</i>						
	<i>Trimeresurus erythhrurus</i>						✓*
TYPHLOPIDAE							
	<i>Argyrophis diardii</i>						✓*
EMYDIDAE							
	<i>Cuora mouhotii</i>	✓					
	<i>Cyclemys gemelli</i>	✓					
	<i>Melanochelys trijuga</i>	✓					
TESTUDINIDAE							
	<i>Indotestudo elongata</i>	✓					

With the subsequent observations by Lalrinchhana & Solanki (2015), Lalremsanga et al. (2016), Muansanga et al. (2020), Biakzuala et al. (2020), Decemson et al. (2021), currently the reptilian fauna of DTR stands to 40 species (saurians: 26, serpentes: 9; cheloneans: 4). The present study recorded 33 species of reptiles from DTR of which 16 species of snakes, viz., *Hebius khasiensis*, *Rhabdophis himalayunus*, *Smithophis bicolor*, *Smithophis atemoralis*, *Boiga ochracea*, *Boiga quincunciata*, *Oligodon* cf. *cinereus*, *Oligodon dorsalis*, *Dendrelaphis cyanochloris*, *Ahaetulla flavescens*, *Pseudoxenodon macrops*, *Pareas monticola*, *Naja kaouthia*, *Bungarus fasciatus*, *Trimeresurus erythhrurus*, and *Agyrophis diardii* were reported for the first time from DTR.

Pawar & Birand (2001) made a pioneer work to document the herpetofauna of DTR. They recorded 27 species of reptiles from DTR out of which one species (*Draco* sp.) cannot be determined to a species level. However, they indicated that the species in question had

an affinity with *D. blanfordi* or *D. norvilli* and another two species that were conferred as *Dendrelaphis* cf. *pictus* and *Trimeresurus* cf. *stejnegeri* needs verification.

Lalrinchhana et al. (2011) recorded 22 species of lizard from DTR. Subsequently, Lalrinchhana & Solanki (2015) recorded 22 species of lizards from DTR. It is interesting to note that, even though the number of species recorded in these studies remained the same, the recorded species were not the same. Eighteen species, viz., *Calotes versicolor*, *Calotes emma*, *Draco maculatus*, *Cristidorsa planidorsata*, *Ptyctolaemus gularis*, *Gekko* gecko, *Hemidactylus platyurus*, *Hemidactylus frenatus*, *Hemidactylus brookii*, *Hemidactylus garnotii*, *Cyrtodactylus* sp., *Takydromus sexlineatus*, *Sphenomorphus maculatus*, *Eutrophis multifasciata*, *Eutrophis macularia*, *Tropidophorus assamensis*, *Varanus bengalensis*, and *Varanus salvator* were recorded in both studies. Lalrinchhana & Solanki (2015) reported four species viz., *Calotes* cf. *irawadi*,

Draco maculatus divergens, *Draco* cf. *blanfordi*, and *Sphenomorphus indicus* which were not reported by Lalrinchhana et al. (2011). A recent study in DTR (Lalmuansanga et al. 2020) as well as the present study recorded *Cyrtodactylus montanus* from DTR. Therefore, the species previously reported as *Cyrtodactylus* sp. from DTR is likely represented by this species.

The reports of *Calotes versicolor* by Pawar & Birand (2001), Lalrinchhana et al. (2011), and Lalrinchhana & Solanki (2015) remain unclear as Gowande et al. (2021) removed *C. versicolor* from northeastern India and placed all the northeastern Indian species in *C. irawadi* clade, therefore, the revaluation of *Calotes versicolor* group in northeast India is requires further studies. Gowande et al. (2021) stated that males of *C. versicolor* attain yellowish overall coloration, the trunk and the orbital region turns bright orange, forelimbs and hind limbs turn dark to black, however in present study we documented a displaying male from Teirei river, DTR with a reddish colour around the tympanum that extends till the midbody, which resembles the revived species, *Calotes vultuosus* (Type locality Kolkata, West Bengal) and the occurrence of this species needs to be checked/ confirmed in Mizoram. Pawar & Birand (2001) also reported four chelonians during their study in DTR which were not encountered in the present study. Among other additions, Vanlalchhuan et al. (2016) reported the nesting and hatchlings of *Ophiophagus hannah* from DTR.

The maximum number of encounters during our study inhabit roadside vegetation, forest trails and streams flowing along the roadside while there were very few encounters in the oil palm plantation. The roads connecting the villages within DTR are a borderline between the core and buffer zones. The expansion of road networks is one of the major threats for wildlife as a result of habitat destruction and population fragmentation (Mader 1984; Jaarsma et al. 2006). Moreover, the impact of roads is manifested in the direct mortality of wildlife through wildlife-vehicle collisions (Bennett 2017). Vehicle collisions are a major cause of mortality for a wide variety of herpetofauna (Dutta et al. 2016). During our survey at DTR, we observed a road-killed gravid female *Trimersurus erythrurus*. As much as road connectivity is essential for the communities living in the fringe villages of DTR, detailed studies on the impact of roads on the wildlife of DTR in general and herpetofauna, in particular, will help in formulating mitigation measures.

Biodiversity incentivization provides essential baseline data on life forms in space and time (McDiarmid

et al. 2012), the local herpetofauna diversity inventory presented in this study will ultimately contribute to our understanding of biodiversity and it will be valuable information for policy makers.

REFERENCES

Ahmed, F., A. Das & S.K. Dutta (2009). *Amphibians and reptiles of Northeast India: A photographic guide*. Aaranyak, Guwahati, India, 184 pp.

Ashaharraza, K., V. Rangasamy, H.T. Lalremsanga, Lalbiakzuala, J. Sailo & T. Charlton. (2019). A new state record of the Mandarin Rat Snake *Euprepiophis mandarinus* (Cantor, 1842) (Squamata: Colubridae: Coronellini) from Mizoram, India. *Amphibian & Reptile Conservation* 13(1): 230–234

Bennett, V.J. (2017). Effects of Road Density and Pattern on the Conservation of Species and Biodiversity. *Current Landscape Ecology Reports* 2: 1–11. <https://doi.org/10.1007/s40823-017-0020-6>

Biakzuala, L., K.B. Vanlalhrima, Barman & H.T. Lalremsanga (2020). Rediscovery and updated distribution of *Lycodon septentrionalis* from Mizoram state, north-east India. *Herpetological Bulletin* 152: 24–25.

Champion, S.H.G. & S.K. Seth (1968). *A revised survey of the forest types of India*. The manager of Publication, Delhi, 404 pp.

Crump, M.L. & N.J. Scott (1994). *Visual encounter survey*, pp. 84–91. In: Heyer, W.R. M.A. Donnelly, R.W. McDiarmid, L.C. Donnelly, Heyek & M.S. Foster (Eds). *Measuring and monitoring Biological diversity, Standard methods for Amphibians*. Smithsonian Institution Press, Washington D.C., 364 pp.

David, P. & G. Vogel (2021). Taxonomic composition of the *Rhabdophis subminiatus* (Schlegel, 1837) species complex (Reptilia: Natricidae) with the description of a new species from China. *Taprobanica* 10(2): 89–120.

Das A. (2010). Systematics and biogeography of the snakes of northeast India. PhD Thesis. Utkal University, 467 pp.

Das A., U. Saikia, B.H.C.K. Murthy, S. Dey & S.K. Dutta. (2009). A herpetofaunal inventory of Barail Wildlife Sanctuary and adjacent regions, Assam, north-eastern India. *Hamadryad* 34(1): 117–134.

Das A., E.N. Smith, I. Sidik, G.C. Sarker, B. Boruah, N. Patel, B.H.C.K. Murthy & V. Deepak (2021). Hidden in the plain sight: a new species of *Rhabdophis* (Serpentes: Natricinae) from the *Rhabdophis himalayanus* complex. *Zootaxa* 5020(3): 401–433.

Das I. & A. Das (2017). *A naturalist's guide to the reptiles of India (Bangladesh, Bhutan, Nepal, Pakistan and Sri Lanka)*. John Beaufoy Books, 176 pp.

Decemson, H., S. Gouda, G.Z. Hmar & H.T. Lalremsanga (2021). An annotated checklist of amphibians in and around Dampa Tiger Reserve, Mizoram, India. *Journal of Threatened Taxa* 13(3): 17918–17929. <https://doi.org/10.11609/jott.6319.13.3.17918-17929>

Dutta, D., S. Sengupta, A. K. Das & A. Das (2013). New distributional records of *Lycodon zawi* (Serpentes: Colubridae) from Northeast India. *Herpetology Notes* 6: 263–265.

Dutta S., H.P. Jana, S. Saha & S.K. Mukhopadhyay (2016). The Cause and Consequences of Road Mortality of Herpetofauna in Durgapur, West Bengal, India. *Russian Journal of Ecology* 47(1): 88–95.

Forest Survey of India (1999). State of forest report 1999. Forest Survey of India, Dehradun (Ministry of Environment and Forests, Government of India). https://fsi.nic.in/documents/sfr_1999hindi.pdf

Giri V.B., R. Chaitanya, S. Mahony, S. Lalronunga, C. Lalrinchhana, A. Das, V. Sarkar, K. Praveen & V. Deepak (2019b). On the systematic status of the genus *Oriocalotes* Günther, 1864 (Squamata: Agamidae: Draconinae) with the description of a new species from Mizoram state, Northeast India. *Zootaxa* 4638(4): 451–484.

Giri, V.B., D.J. Gower, A. Das, H.T. Lalremsanga, S. Lalronunga, A.

Captain & V. Deepak (2019a). A new genus and species of natricine snake from northeast India. *Zootaxa* 4603(2): 241–264.

Gray, J.E. (1845). Catalogue of the specimens of lizards in the collection of the British Museum. Trustees of the British Museum/Edward Newman, London: xxvii+289 pp.

Gumprecht A. & J. Bulian (2003). Die Bambusottern der Gattung *Trimeresurus* Lacépède. Teil VIII: Nachträge und Anmerkungen zur Checkliste der Trimeresurus-Arten Thailands. *Sauria* 25(4): 15–17.

Hmar, G.Z., Lalbiakzuala, Lalmuansanga, Lalrinsanga, Lalruathara & H.T. Lalremsanga (2020). Inventory survey on the Ophidian Fauna of Reiek Community Reserved Forest, Mamit District, Mizoram, India. *Journal of Environmental Biology* 41(4): 821–826.

Jaarsma C.F., F. van Langevelde & H. Botma (2006). Flattened fauna and mitigation: traffic victims related to road, traffic, vehicle, and species characteristics. *Transportation Research Part D: Transport and Environment* 11: 264–276.

Jerdon, T.C. (1870). Notes on Indian Herpetology. *Proceedings of the Asiatic Society of Bengal*, March 1870: 66–85.

Koch, A., T. Ziegler, W. Böhme, E. Arida & M. Auliya (2013). Distribution, threats and conservation status of the monitor lizards (Varanidae: *Varanus* spp.) of South East Asia and the Indo-Australian archipelago. *Herpetological Conservation and Biology* 8(3): 1–62.

Lalbiakzuala & H.T. Lalremsanga. (2019a). Geographic distribution. *Hebius venningi* (Chin Hills Keelback). *Herpetological Review* 50: 330.

Lalbiakzuala & H.T. Lalremsanga. (2019b). *Pareas margaritophorus*, a new country report for India. *Herpetological Review* 50: 332.

Lalbiakzuala & H.T. Lalremsanga (2020). Rediscovery of *Oligodon catenatus* (Blyth, 1854) (Squamata: Colubridae) from India. *Amphibian and Reptile Conservation* 14: 226–230.

Lalramliana, M.C. Zirkung & S. Lalronunga (2020). Ichthyofauna of Dampa Tiger Reserve Rivers, Mizoram, North-Eastern India. *Journal of Environmental Biology* 41: 884–895

Lalremsanga, H.T. & M.C. Lalronunga (2017). *Mizoram Rul Chanchin*. BIOCONE and MIISTIC, Aizawl, Mizoram.

Lalremsanga, H.T., S. Sailo & H. Chinliansima (2011). Diversity of snakes (Reptilia: Squamata) and role of environmental factors in their distribution in Mizoram, Northeast India. *Proceedings of Advances in Environmental Chemistry* 64: 265–269.

Lalremsanga, H.T., H. Chinliansima, S.C. Bohra, L. Biakzuala, M. Vabeiryureilai, L. Muansanga, F. Malsawmdawngliana, G.Z. Hmar, Ht Decemson, V. Siammawii & M. Das (2022). A new bent-toed gecko (*Cyrtodactylus* Gray: Squamata: Gekkonidae) from the state of Mizoram, India. *Zootaxa* 5093(4): 465–482.

Lalremsanga, H.T., S. Sailo, C. Lalrinchhana, S. Lalronunga & Lalrotluanga (2014). Herpetofaunal survey on Tam Dil National wetland, Mizoram, India. Biodiversity and Livelihood. West Bengal Biodiversity Board. Kolkata, West Bengal.

Lalrinchhana, C. & G.S. Solanki (2015). Lizard (Reptilia: Sauria) diversity of Dampa Tiger Reserve, Mizoram, India. *Science Vision* 15(1): 19–28.

Lalrinchhana, C., G.S. Solanki & H.T. Lalremsanga (2015). Diversity of Saurian in Mizoram Northeast, India. *Advances in Environmental Chemistry* 64: 106–108.

Lalronunga, S., K. Lalhmangaiha, I. Zosangliana, E. Lalhmingliani, D.J. Gower, A. Das & V. Deepak (2021). A new species of *Stoliczka* Jerdon, 1870 (Serpentes: Xenodermidae) from Mizoram, India. *Zootaxa* 4996(3): 555–568.

Lalronunga, S., Lalhmingthanga, I. Zosangliana, K. Lalhmangaiha, L. Varte, Lalzuitluanga & E. Lalhmingliani (2021). New locality records of *Dendrelaphis biloreatus* Wall, 1908 (Serpentes: Colubridae) in India, extending its known range southwards. *Sauria* 43: 71–75.

Leviton, A.E., G.O.U. Wogan; M.S. Koo; G.R. Zug; R.S. Lucas & J.V. Vindum (2003). The Dangerously Venomous Snakes of Myanmar Illustrated Checklist with Keys. *Proceedings of the California Academy of Sciences* 54(24): 407–462.

Manthey, U. (2008). *Agamid Lizards of Southern Asia - Draconinae* 1. Edition Chimaira, 160 pp.

Mader, H.J. (1984). Animal habitat isolation by roads and agricultural fields. *Biological Conservation* 29: 81–96.

Matthew, R. (2007). *Fauna of Mizoram, State Fauna Series*, 14, *Reptilia*, pp. 545–577. Zoological Survey of India, Kolkata, v+691 pp.

McDiarmid, R.W., M.S. Foster, C. Guyer, N. Chernoff & J.W. Gibbons (Eds.) (2012). *Reptile Biodiversity: Standard Methods for Inventory and Monitoring*. University of California Press, USA.

Muansanga, L., Ht. Decemson, L. Biakzuala, G.Z. Hmar, H.T. Lalremsanga, M. Das & J. Purkayastha (2020). First Record of the Jampui Bent-toed Gecko, *Cyrtodactylus montanus* Agarwal, Mahony, Giri, Chaitanya, and Bauer 2018 (Squamata: Gekkonidae), from Mizoram, India. *Reptiles & Amphibians* 27(2): 267–268.

Pawar, S. & A. Birand (2001). A Survey of amphibians, Reptiles and Birds in Northeast India. CERC Technical Report #6, Centre for Ecological Research and Conservation, Mysore, India.

Purkayastha, J., H.T. Lalremsanga, S.C. Bohra, L. Biakzuala, Ht. Decemson, L. Muansanga, M. Vabeiryureilai, S. Chauhan & Y.S. Rathee (2021). Four new Bent-toed geckos (*Cyrtodactylus* Gray: Squamata: Gekkonidae) from northeast India. *Zootaxa* 4980(1): 451–489.

Purkayastha, J., H.T. Lalremsanga, B. Litho, Y.S. Rathee, S.C. Bohra, M. Vabeiryureilai, L. Biakzuala & L. Muansanga (2022). Two new *Cyrtodactylus* (Squamata, Gekkonidae) from Northeast India. *European Journal of Taxonomy* 794: 111–139.

Raman, T.R.S., G.S. Rawat & A.J.T. Johnsingh (1998). Recovery of tropical forest avifauna in relation to vegetation succession following shifting cultivation in Mizoram, North-east India. *Journal of Applied Ecology* 35: 214–231.

Srikanthan, A.N., O.D. Adhikari, A.K. Mallik, P.D. Campbell, B.B. Bhatt, K. Shanker & S.R. Ganesh (2022). Taxonomic revaluation of the *Ahaetulla prasina* (H. Boie in F. Boie, 1827) complex from northeast India: resurrection and redescription of *Ahaetulla flavescens* (Wall, 1910) (Reptilia: Serpentes: Colubridae). *European Journal of Taxonomy* 839: 120–148. <https://doi.org/10.5852/ejt.2022.839.1937>

Talukdar, S.K. & D.P. Sanyal (1978). Four new records of reptiles from Mizoram. *Bulletin of the Zoological Survey of India* 1: 319–320.

Vanlalchhuana, M., Lalrinsanga, Lalbiakzuala, H.C. Lalrinenga, Zothanga, H.T. Lalremsanga, Romalsawma, S. Lianzela, Vanlalhrima, V. Sailo, V. Vanchhawng, P. Pachuau, H. Laltlanchhuha, D. Lalneihanga, Lallawmkima, Lalsiamkima, J. Lalnunzira & H. Lalremruata (2016). The Nesting Ecology and Hatchlings of the King Cobra *Ophiophagus hannah* (Reptilia: Squamata: Elapidae) in Mizoram, Northeast India. In: Science and Technology for Shaping the Future of Mizoram. Proceedings of the Mizoram Science Congress 2016. Allied Publishers Pvt. Ltd.

Vogel, G., T. Nguyen, N. Poyarkov, H.T. Lalremsanga, Vanlalhrima, & L. Biakzuala (2020). Taxonomic reassessment of the *Pareas margaritophorus-macularius* species complex (Squamata, Pareidae). *Vertebrate Zoology* 70: 547–569. <https://doi.org/10.26049/VZ70-4-2020-02>

Vogel, G., H.T. Lalremsanga & Vanlalhrima. (2017). A second species of the genus *Blythia* Theobald, 1868 (Squamata: Colubridae) from Mizoram, India. *Zootaxa* 4276(4): 569–581.

Vogel, G., & J. van Rooijen (2011). Contributions to a review of the *Dendrelaphis pictus* (Gmelin, 1789) complex (Serpentes: Colubridae) – 3. The Indian forms, with the description of a new species from the Western Ghats. *Journal of Herpetology* 45: 100–110. <https://doi.org/10.1670/09-035.1>

Zug, G.R., H.H. Brown, J.A. Schulte & J.V. Vindum (2006). Systematics of the garden lizards, *Calotes versicolor* group (Reptilia, Squamata, Agamidae), in Myanmar: central dry zone populations. *Proceedings of the California Academy of Sciences* 57: 35–68.

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. Karen 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 Al Al Kuwait Real Estate. Co. K.S.C., Kuwait
Dr. Himender Bharti, Punjabi University, Punjab, India
Mr. Purnendu Roy, London, UK
Dr. 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. Karen 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 T.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. Neelesh Dahanukar, IISER, Pune, Maharashtra, India
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 Dubai, UAE.
Prof. Dr. Wayne J. Fuller, Near East University, Mersin, Turkey
Prof. Chandrashekher 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

Birds

Dr. Hem Sagar Baral, Charles Sturt University, NSW Australia
Mr. H. Biju, 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 Jayopal, SACON, 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 Sundev, Professor of Ornithology, Ulaanbaatar, Mongolia
Prof. Reuven Yosef, International Birding & Research Centre, Eilat, Israel
Dr. Taej Mundkur, Wetlands International, Wageningen, The Netherlands
Dr. Carol Inskip, Bishop Auckland Co., Durham, UK
Dr. Tim Inskip, 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. M. Zafar-ul Islam, Prince Saud Al Faisal Wildlife Research Center, Taif, Saudi Arabia

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, SACON, 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, SACON, 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, The American College, Madurai, 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, Budhanilkantha Municipality, Kathmandu, Nepal
Dr. Susan Cheyne, Borneo Nature Foundation International, Palangkaraya, 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 Helleni 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. Bharat Baviskar, Wild-CER, Nagpur, Maharashtra 440013, India

Reviewers 2019–2021

Due to paucity of space, the list of reviewers for 2018–2020 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,
43/2 Varadarajulu Nagar, 5th Street West, Ganapathy, Coimbatore,
Tamil Nadu 641035, India
ravi@threatenedtaxa.org

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

Communications

The killing of Fishing Cat *Prionailurus viverrinus* (Bennett, 1833)

(Mammalia: Carnivora: Felidae) in Hakaluki Haor, Bangladesh

– Meherun Niger Sultana, Ai Suzuki, Shinya Numata, M. Abdul Aziz & Anwar Palash, Pp. 21903–21917

Feeding ecology of the endangered Himalayan Gray Langur

Semnopithecus ajax in Chamba, Himachal Pradesh, India

– Rupali Thakur, Kranti Yardi & P. Vishal Ahuja, Pp. 21918–21927

Kleptoparasitic interaction between Snow Leopard *Panthera uncia* and Red Fox *Vulpes vulpes* suggested by circumstantial evidence in Pin Valley National Park, India

– Vipin, Tirupathi Rao Golla, Vinita Sharma, Bheemavarapu Kesav Kumar & Ajay Gaur, Pp. 21928–21935

A comparison of the breeding biology of White-throated Kingfisher *Halcyon smyrnensis* Linnaeus, 1758 in plains and hilly areas of Bangladesh

– Habibon Naher, Noor Jahan Sarker & Shawkat Imam Khan, Pp. 21936–21945

An updated checklist of reptiles from Dampa Tiger Reserve, Mizoram, India, with sixteen new distribution records

– Malsawmdawngiana, Bitupan Boruah, Naitik G. Patel, Samuel Lalronunga, Isaac Zosangiana, K. Lalhmangaiha & Abhijit Das, Pp. 21946–21960

First report of marine sponge *Chelonaplysilla delicata* (Demospongidae: Darwinellidae) from the Andaman Sea/Indian Ocean with baseline information of epifauna on a mesophotic shipwreck

– Rocktim Ramen Das, Titus Immanuel, Raj Kiran Lakra, Karan Baath & Ganesh Thiruchitrambalam, Pp. 21961–21967

Intertidal Ophiuroidea from the Saurashtra coastline, Gujarat, India

– Hitisha Baroliya, Bhavna Solanki & Rahul Kundu, Pp. 21968–21975

Environmental factors affecting water mites (Acari: Hydrachnidia) assemblage in streams, Mangde Chhu basin, central Bhutan

– Mer Man Gurung, Cheten Dorji, Dhan B. Gurung & Harry Smit, Pp. 21976–21991

An overview of genus *Pteris* L. in northeastern India and new report of *Pteris amoena* Blume from Arunachal Pradesh, India

– Ashish K. Soni, Vineet K. Rawat, Abhinav Kumar & A. Benniamin, Pp. 21992–22000

Nectar robbing by bees on the flowers of *Volkameria inermis* (Lamiaceae) in Coringa Wildlife Sanctuary, Andhra Pradesh, India

– P. Suvarna Raju, A.J. Solomon Raju, C. Venkateswara Reddy & G. Nagaraju, Pp. 22001–22007

Contribution to the moss flora of northern Sikkim, India

– Himani Yadav, Anshul Dhyani & Prem Lal Uniyal, Pp. 22008–22015

Short Communications

Firefly survey: adopting citizen science approach to record the status of flashing beetles

– Nidhi Rana, Rajesh Rayal & V.P. Uniyal, Pp. 22016–22020

First report of *Gymnopilus ochraceus* Høil. 1998 (Agaricomycetes: Agaricales: Hymenogastraceae) from India and determination of bioactive components

– Anjali Rajendra Patil & Sushant Ishwar Bornak, Pp. 22021–22025

Notes

A coastal population of Honey Badger *Mellivora capensis* at Chilika Lagoon in the Indian east coast

– Tiasa Adhya & Partha Dey, Pp. 22026–22028

New distribution record of Black Softshell Turtle *Nilssonia nigricans* (Anderson, 1875) from Manas National Park, Assam, India

– Gayatri Dutta, Ivy Farheen Hussain, Pranab Jyoti Nath & M. Firoz Ahmed, Pp. 22029–22031

First report of melanism in Indian Flapshell Turtle *Lissemys punctata* (Bonnaterre, 1789) from a turtle trading market of West Bengal, India

– Ardhendu Das Mahapatra, Anweshan Patra & Sudipta Kumar Ghorai, Pp. 22032–22035

The Fawcett's Pierrot *Niphanda asialis* (Insecta: Lepidoptera: Lycaenidae) in Bandarban: an addition to the butterfly fauna of Bangladesh

– Akash Mojumdar & Rajib Dey, Pp. 22036–22038

Publisher & Host

