



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

Journal of Threatened Taxa

Building evidence for conservation globally

www.threatenedtaxa.org

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

SHORT COMMUNICATION

SOME NEW RECORDS OF KATYDIDS (ORTHOPTERA: TETTIGONIIDAE) FROM UTTAR PRADESH, INDIA

Ramesh Singh Yadav & Dharmendra Kumar

26 April 2020 | Vol. 12 | No. 5 | Pages: 15655–15660

DOI: 10.11609/jott.4331.12.5.15655-15660



For Focus, Scope, Aims, Policies, and Guidelines visit <https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-0>

For Article Submission Guidelines, visit <https://threatenedtaxa.org/index.php/JoTT/about/submissions#onlineSubmissions>

For Policies against Scientific Misconduct, visit <https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-2>

For reprints, contact <ravi@threatenedtaxa.org>

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.

Member



Publisher & Host





Some new records of katydids (Orthoptera: Tettigoniidae) from Uttar Pradesh, India

Ramesh Singh Yadav¹ & Dharmendra Kumar²

¹ Government School Dehariya, Post - Rohuna (Zamania), District- Ghazipur, Uttar Pradesh 232331, India.

² Janta Vedic College Baraut, Baghpat District, Uttar Pradesh 250611, India.

¹ ramesh_bhu@rediffmail.com (corresponding author), ² vermaento@gmail.com

Abstract: In the present investigation intensive field surveys were undertaken to explore katydids of Uttar Pradesh. Five species of katydids from four genera, namely, *Letana* cf. *megastridula* Ingrisch, 1990, *Parasanaa donovani* (Donovan, 1834), *Sathrophyllia femorata* (Fabricius, 1787), *S. rugosa* (Linnaeus, 1758), and *Acanthopron suspectum* (Brunner 1895) were recorded for the first time from Uttar Pradesh, India.

Keywords: *Acanthopron*, Chandauli, Ghazipur, grasshoppers, *Letana*, Mirzapur, *Parasanaa*, *Sathrophyllia*.

Grasshoppers and katydids are an important group belonging to the order Orthoptera. Globally, more than 28,530 valid species of orthoptera have been catalogued in which more than 7,500 species of tettigoniids are known worldwide (Cigliano et al. 2018). Exploration of tettigoniids from Uttar Pradesh, India is not much more explored as compare to Maharashtra (Chandra & Gupta 2012). However, due to the scattered reporting on this group, exact estimation is unavailable also at the national level as well as from Uttar Pradesh. However, Shishodia et al. (2010) mentioned some 160 species from 72 genera of tettigoniids in his checklist of Orthoptera from India. Due to the scattered reporting on this group, exact estimation is unavailable at the national level, however, Shishodia et al. (2010) mentioned some 160

species from 72 genera of tettigoniids in his checklist of Orthoptera from India. They are dominant fauna of tropical and subtropical ecosystems. In India, most of the taxonomic studies of katydids are carried out from the northeastern Indian states as compare to other states (Shishodia et al. 2010).

Katydid are also called long-horned grasshoppers. They belong to the suborder Ensifera and the superfamily Tettigonoidea. They are very easily identified by their very long antennae, (hence the common name) and sword- or sickle-shaped long ovipositor with four segmented tarsi. They are more similar to crickets than other grasshoppers. The Indian katydids are grouped in nine subfamilies of which Phaneropterinae is the most diverse and Phyllophorinae is the least diverse subfamily. *Letana* is a highly diverse genus of katydids (Tettigoniidae) in India (Shishodia et al. 2010). Some important notable works on the taxonomy and distribution of Tettigoniidae from India are done by Barman & Srivastava (1976), Barman (1993, 2003), Ingrisch & Shishodia (2000), Shishodia (2000), Shishodia & Tandon (2000), Kulkarni & Shishodia (2004, 2005), Shishodia & Barman (2004), Senthilkumar et al. (2006), Chandra et al. (2007), Senthilkumar (2010), Shishodia

Editor: R.K. Avasthi, Rtd. Associate Professor/Head, Vaish College, Rohtak, India.

Date of publication: 26 April 2020 (online & print)

Citation: Yadav, R.S. & D. Kumar (2020). Some new records of katydids (Orthoptera: Tettigoniidae) from Uttar Pradesh, India. *Journal of Threatened Taxa* 12(5): 15655-15660. <https://doi.org/10.11609/jott.4331.12.5.15655-15660>

Copyright: © Yadav & Kumar 2020. 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: None.

Competing interests: The authors declare no competing interests.

Acknowledgements: Authors are thankful to the Professor-in-charge, RGSC, BHU, Barkachha, Mirzapur, India for laboratory assistance. The first author wishes to extend his gratitude to Dr. Sigfrid Ingrisch, Germany for providing the translation of Beier's key (1954), and also to Dr M.A. Farooqi (India) for providing the necessary literature.





Figure 1. Survey sites in Uttar Pradesh

et al. (2010), Srinivasan & Prabakar (2012), and Yadav (2016).

Uttar Pradesh is one of the largest states in India and considered biogeographically diverse ranging from plains to dry and plateau areas. Here, floral and faunal diversity is very varied but katydids are under-studied probably because of their nocturnal habit. Farooqi & Usmani (2016) recorded 13 species of katydids from this

Table 1. Coordinates of survey sites.

	Site	Coordinate
1	Barkachcha, Mirzapur	25.133°N & 82.564°E
2	Chahaniya, Chandauli	25.418°N & 83.211°E
3	Gai Ghat, Ghazipur	25.415°N & 83.559°E
4	Jangipur, Ghazipur	25.654°N & 83.557°E
5	Maujhi, Chandauli	25.260°N & 83.266°E
6	Nagra, Ballia	25.968°N & 83.871°E
7	Sahadatpur, Mau	25.924°N & 83.452°E

state. Hence, the authors have tried to explore the long-horned grasshoppers from Uttar Pradesh.

Materials and Methods

The present exploration was part of a series of surveys at several locations in eastern Uttar Pradesh during 2017 (Image 1). The katydids were collected using sweep nets, light traps, and by hand picking. Most collections were made during night and morning hours, i.e., 19.30–23.00 h and 07.00–10.00 h, respectively. The collected katydids were killed in a container containing ethyle acetate. Subsequently, the materials were cleaned with hair brush, pinned and relaxed (as per need) on the handmade stretching board of thermacol. It was kept for more than 60–72 hours for drying to avoid decomposition of the specimens. The identification is based on the morphological and genital features and classification was done according to Cigliano et al. (2018). The specimens collected were deposited in the Department of Entomology and Agricultural Zoology (RGSC), Faculty of Agriculture, Rajiv Gandhi South Campus, Banaras Hindu University, Mirzapur, Uttar Pradesh, India. The coordinates of the survey sites are presented in Table 1.

Results

Order: Orthoptera

Suborder: Ensifera

Superfamily: Tettigoniioidea

Family: Tettigoniidae

1. Subfamily: Phaneropterinae

Tribe: Letanini

***Letana cf megastridula* Ingrisch, 1990** (Image 1)

1990. *Letana megastridula* Ingrisch, *Entomologica Scandinavica* 21(3): 258.

2007. *Letana megastridula* Chandra et al. *Zoos' Print Journal* 22(5): 2684.

2016. *Letana megastridula* Gaikwad et al. *Journal of Threatened Taxa* 8(2): 8534.



Image 1. *Letana* cf. *megastridula* Ingrisch, 1990.

Materials examined: RGSCE 006–007, 17.ix.2017, 1 male, 1 female, Uttar Pradesh, Chahaniya (Chandauli), grasses, coll. R.S. Yadav; RGSCE 008, 10.ix.2017, 1 female, Nagra (Ballia), grasses, coll. R.S. Yadav; RGSCE 009, 24.ix.2017, 1 male, Jangipur (Ghazipur), bushes, coll. R.S. Yadav; RGSCE 0010, 24.ix.2017, 1 female, Sahadatpura (Mau), bushes, coll. R.S. Yadav.

Diagnosis characters: Bluish-green, medium-sized insect. An antenna is about a double the length of the body. The tegmina is narrow, dorsal portion of tegmina is brown in colour, surpassing the hind knees and with forked radial areas (Ra); the left tegmina with broad stridulatory field. Body along with legs is reddish or blackish dots. Cerci expanded internally.

Distribution: Bihar, Chhattisgarh, Himachal Pradesh, Maharashtra, and Tamil Nadu (Shishodia et al. 2010), and Uttar Pradesh (present study).

Habitat: The species is more common in grasses.

Remark: The genus *Letana* is the most diverse taxon of katydids in India.

2. Subfamily: Pseudophyllinae

i. Tribe: Cymatomerini

Parasanna donovani (Donovan, 1834) (Image 2)

2000. *Parasanna donovani*, Ingrisch & Shishodia, *Mitt. Munch. Ent. Ges.* 90 : 21.

2003. *Parasanna donovani*, Barman, *State Fauna Series*, 9: *Fauna of Sikkim*, Part 2, Zool. Surv. India: 199.

Materials examined: RGSCE 001, Uttar Pradesh, 5.ix.2017, 1 female, Maujhi (Chandauli), forest tree, coll. RS Yadav; RGSCE 002–003, 10.ix.2017, 2 females, Barkachchha (Mirzapur), shrubs, coll. D Kumar.

Diagnosis characters: Medium to large insect. Beautifully decorated. Antennae are brownish in colour. The head and body are brownish in colour whereas the pronotum is light yellow in colour with two brown spots. The tegmina are with three reddish-brown irregular spots between the radius and cubitus region. The ovipositors are reddish-brown in colour.



Image 2. *Parasanna donovani* (Donovan, 1834).

Distribution: Rajasthan, Sikkim (Shishodia et al. 2010), and Uttar Pradesh (present study).

Habitat: Small bushes are the preferred habitat of the species.

Sathrophyllia femorata (Fabricius, 1787) (Image 3)

1869. *Sathrophyllia femorata*, Walker, *Cat. Derm. Salt. Brit. Mus.*: 401.

1954. *Sathrophyllia femorata*, Beier, *Trab. Inst. Esp. ent. Madrid*: 236.

1993. *Sathrophyllia femorata*, Barman, *State Fauna Series*, 3: *Fauna of West Bengal*, Part 4, Zool. Surv. India: 359.

2003. *Sathrophyllia femorata*, Barman, *State Fauna Series*, 9: *Fauna of Sikldm*, Part 2, Zool. Surv. India: 197.

Materials examined: RGSCE 0011–12, 5.viii.2017, 2 females, Uttar Pradesh, Barkachchha (Mirzapur), shrubs, coll. D. Kumar.

Diagnosis characters: It is the large insect with brownish colour. The vertex of head excavated at the apex portion with two horny projections. The pronotum is strongly crested over. The tegmina is rounded at apex. Wing is close to the tegmina. The all femora are waved below. Subgenital plate is broad, styli conical and epiproct rounded with curved cerci. Sword shaped ovipositors with black at tip.

Distribution: Karnataka, Maharashtra, Sikkim, Tamil Nadu and West Bengal. (Shishodia et al. 2010), and Uttar Pradesh (present study).

Habitat: It is prevalent in bushes and forest tree.

Remark: Only female specimens were found.

Sathrophyllia rugosa (Linnaeus, 1758) (Image 4)

1758. *Gryllus* (*Tettiginia*) *rugosa* Linnaeus, *Systema*



© D. Kumar

Image 3. *Sathrophyllia femorata* (Fabricius, 1787)

Naturae per Regna Tria Naturae, (10th ed.): 430.

1815. *Conocephalus cornotus* Thunberg, *Mem. Acad. Imp. Sci. St. Petersburg*. 5: 277.

1906. *Sathrophyllia rugosa* Kirby, *Syn. Cat. Orth.*: 306.

1993. *Sathrophyllia rugosa* Barman, *State Fauna Series 3: Fauna of West Bengal, Part 4, Zool. Surv. India*: 284, 285.

2004. *Sathrophyllia rugosa* Shishodia & Barman, *State Fauna Series 10: Fauna of Manipur, Zool. Surv. India*: 144.

2016. *Sathrophyllia rugosa* Gaikwad et al., *Journal of Threatened Taxa* 8(2): 8536.

Materials examined: RGSCE 021–022, 5.viii.2017, 2 females, Uttar Pradesh, Barkachchha (Mirzapur), shrubs, coll. D Kumar.

Diagnosis characters: It is an ash coloured large insect. The pronotum has one anterior and several posterior teeth. The tegmina is slightly shorter than wings. The fore femur is stout with ventral margin and is strongly lamellate and with distinct lobe. The dorsal edge of mid femur is only faintly lamellar and mostly straight. Inner dorsal edge of hind tibia is with distinct teeth. The supra anal plate oval and little cut at apex. Ovipositor is toothed at apex.

Distribution: Karnataka, Madhya Pradesh, Manipur,

Keys to some recorded katydids from Uttar Pradesh

Key to subfamilies

1. Prosternal spines present; forewing oval and coastal areas with many transverse veins; ovipositor long and straight Pseudophyllinae
- Prosternal spines absent; forewing not like above, without transverse costal veins; ovipositor short and bent upward Phaneropterinae

Key to tribes of Pseudophyllinae

1. Mostly brownish in colour; bark like; pronotum with or without tubercles; tegmina rugose or not rugose; all femora compressed at exteroventral margin, more or less expanded Cymatomerini
- Mostly greenish in colour, boat likes; pronotum without tubercles; tegmina not rugose always, covering the some part of pronotum; femora not like above Phyllomimini (only one species)

Key to tribes of Phaneropterinae

1. Male having much more bifurcation into subgenital plate Letanaeini (only one species)
- Not much more deep bifurcation into subgenital plate Ducetini (not discussed here)

Key to genera of Cymatomerini

1. Pronotum mostly smooth; tegmina not rugose, wing infumated; radius of tegmina parallel, coarse with subcosta; front femora simple, only hind femora compressed *Parasanaa*
- Pronotum mostly not smooth; tegmina rugose; anal area of wing well developed; frontal femora lamellate *Sathrophyllia*



Image 4. *Sathrophyllia rugosa* (Linnaeus, 1758).

Meghalaya, Sikkim, Tamil Nadu and West Bengal (Shishodia et al. 2010), and Uttar Pradesh (present study).

Habitat: The species prefers shrubs, bushes and tall grasses

Remark: The fauna was recognized by its ash colour, rugose body and crested pronotum.

ii. Tribe: Phyllomimini

Acanthoprion suspectum (Brunner, 1895) (Image 5)

1895. *Aprion suspectum* Brunner von Wattenwyl, *Verhandl. K. K. Zool. Bot. Ges. Wier*: 77.

1962. *Acanthoprion suspectum*, Beier, *Das Tierreich*, 73 : 155.

1993. *Acanthoprion suspectum*, Barman, *State Fauna Series 3: Fauna of West Bengal, Part 4, Zool. Surv. India*: 361.

2010. *Acanthoprion suspectum*, Shishodia et al.. *Record Zoological Survey of India, Occ. Paper No.* 314: 314.

Materials examined: RGSCE 0023–24, 10.xii.2017, 2 females, Uttar Pradesh, Gaighat (Ghazipur), sorghum and flower plant, coll. RS Yadav.

Diagnosis characters: Medium to large insect. The insect body is light green in colour. Fastidium conically



Image 5. *Acanthoprion suspectum* (Brunner, 1895)

produced with blunt apex. The head is conical in appearance. The antennal base is distinguishably elevated. The posterior portion of the pronotum is conical in shape. The tegmina are wrapping the whole body and uniformly in green colour. Ovipositor is sword-shaped, reddish-brown at apex.

Distribution: India: Kerala, Tamil Nadu and West Bengal (Shishodia et al. 2010), Meghalaya (Barman 1995), and Uttar Pradesh (present study).

Habitat: The species prefers shrubs and are more common during the month of August in this area from where the material was collected.

Remark: The fauna was much more mimics to leaves.

Conclusion and Summary

The five species of katydids discussed above are firstly recorded from Uttar Pradesh. Further more intensive field work may enrich katydids fauna of the Uttar Pradesh, India.

References

- Barman, R.S. (1993). Insecta: Orthoptera : Tettigoniidae. *Zoological Survey of India, Fauna of West Bengal, State Fauna Series* 3(4): 355–367.
- Barman, R.S. (1995). Tettigoniidae: Orthoptera. *Zoological Survey of India, Fauna of Meghalaya, State Fauna Series* 4(3): 279–290.
- Barman, R.S. (2003). Insecta: Orthoptera: Tettigoniidae. *Zoological Survey of India, Fauna of Sikkim, State Fauna Series* 9(2): 193–201.
- Barman, R.S. & G.K. Srivastava (1976). On a collection of Tettigoniidae (Insecta) from Arunachal Pradesh, India. *Zoological Survey Newsletter* 2(3): 93–94.
- Beier, M. (1954). Revision der Pseudophyllinen. *Instituto Espariol de*

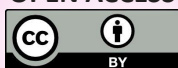
- Entomologia*, Madrid 1–479.
- Beier, M. (1962).** Orthoptera: Tettigoniidae (Pseudophyllinae I). *Das Tierreich* 73: XI+468.
- Brunner, v.W.C. (1895).** Monographie der Pseudophylliden. *Verhandl. K. K. Zool. Bot. Ges. Wien* 282 pp. (+ X pl. issued separately).
- Chandra, K. & S.K. Gupta (2012).** Insecta: Orthoptera. In: Director, Zoological Survey of India (ed.). Fauna of Maharashtra, State Fauna Series 20(Part-2): 429–436.
- Chandra, K., S.K. Gupta & M.S. Shishodia (2007).** A checklist of Orthoptera of Madhya Pradesh and Chhattisgarh. *Zoos' Print Journal* 22(5): 2683–2687. <https://doi.org/10.11609/JoTT.ZPJ.1592.2683-7>
- Cigliano, M.M., H. Bran, D.C. Eades & D. Otte (2018).** <http://orthoptera.speciesfile.org/> Accession date 11.ix.2018.
- Farooqi, M.A. & M.K. Usmani (2016).** A checklist of Tettigoniidae (Orthoptera: Tettigoniidae) from Uttar Pradesh State, India. *Uttar Pradesh Journal of Zoology* 36(2): 149–154.
- Gaikwad, S.M., Y.J. Koli, G.A. Raut, S.H. Waghmare & G.P. Bhawane (2016).** Long-horned grasshoppers (Orthoptera: Tettigoniidae) in Radhanagari Wildlife Sanctuary, Maharashtra, India. *Journal of Threatened Taxa* 8(2): 8533–8537. <https://doi.org/10.11609/jott.2574.8.2.8533-8537>
- Ingrisch, S. (1990).** Revision of the genus *Letana* Walker, 1869 (Grylloptera: Tettigoniidae: Phaneropteridae). *Entomologica Scandinavica* 21(3): 241–276.
- Ingrisch, S. & M.S. Shishodia (2000).** New taxa and distribution records of Tettigoniidae from India (Orthoptera: Ensifera). *Mitteilungen der Münchner Entomologischen Gesellschaft* 90: 5–37.
- Kirby, W.F. (1906).** *A Synonymic Catalogue of Orthoptera (Orthoptera Saltatoria, Locustidae vel Acridiidae)*. British Museum (Natural History), London 2: 562pp.
- Kulkarni, P.P. & M.S. Shishodia (2004).** Insecta: Orthoptera. Conservation Area Series, 20: Pench National Park. Zoological Survey of India 207–225.
- Kulkarni, P.P. & M.S. Shishodia (2005).** Insecta: Orthoptera. Zoological Survey of India, Fauna of Melghat Tiger Reserve, Conservation Area Series 24: 324.
- Linnaeus, C. (1758).** *Systema Naturae per Regna Tria naturae* (10th ed.): 722pp.
- Senthilkumar, N. (2010).** Orthopteroids in Kaziranga National Park, Assam, India. *Journal of Threatened Taxa* 2(10): 1227–1231. <https://doi.org/10.11609/JoTT.o2437.1227-31>
- Senthilkumar, N., N.D. Barthakur & N.J. Borah (2006).** Fauna of Protected Areas - 29. Orthopteran fauna of the Gibbon Wildlife Sanctuary, Assam. *Zoos' Print Journal* 21(8): 2347–2349. <https://doi.org/10.11609/JoTT.ZPJ.1442a.2347-9>
- Shishodia, M.S. (2000).** Short and Long-horned grasshoppers and Crickets of Bastar District, Madhya Pradesh, India. *Records of Zoological Survey of India* 8(1): 27–80.
- Shishodia, M.S., K. Chandra & S.K. Gupta (2010).** An annotated checklist of Orthoptera (Insecta) of India. *Records Zoological Survey of India, Occasional paper* 314: 1–366.
- Shishodia, M.S. & R.S. Barman (2004).** Insecta: Orthoptera: Tettigoniidae. *Zoological Survey of India, Fauna of Manipur, State Fauna Series* 10: 139–145.
- Shishodia, M.S. & S.K. Tandon (2000).** Insecta: Orthoptera: Acridioidea and Eumastacoidea. *Zoological Survey of India, Fauna of Tripura, State Fauna Series* 7(2): 197–230.
- Srinivasan, G. & D. Prabakar (2012).** Additional records of Tettigoniidae from Arunachal Pradesh, India. *Journal of Threatened Taxa* 4(14): 3255–3268. <https://doi.org/10.11609/JoTT.o3065.3255-68>
- Walker, F. (1869).** Catalogue of the specimens of Dermaptera and Saltatoria in the collection of the British Museum. *Catalogue of Locustidae* 3: 225–423.
- Yadav, R.S. (2016).** *Biodiversity of Orthoptera in Varanasi Region: An Exploration and Identification*. LAP LAMBERT Academic Publishing, GmbH, Germany 96pp.





www.threatenedtaxa.org

PLATINUM
OPEN ACCESS



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

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

April 2020 | Vol. 12 | No. 5 | Pages: 15535–15674

Date of Publication: 26 April 2020 (Online & Print)

DOI: 10.11609/jott.2020.12.5.15535-15674

Article

Prey selection and food habits of the Tiger *Panthera tigris* (Mammalia: Carnivora: Felidae) in Kalakkad-Mundanthurai Tiger Reserve, southern Western Ghats, India

– Bawa Mothilal Krishnakumar, Rajarathinavelu Nagarajan & Kanagaraj Muthamizh Selvan, Pp. 15535–15546

Communications

Community-based study to demonstrate the presence and local perspectives of the Critically Endangered Chinese Pangolin *Manis pentadactyla* in Zhejiang Wuyanling, China

– Hongying Li, Shusheng Zhang, Ji Zhang, Zupei Lei, Fangdong Zheng & Peter Daszak, Pp. 15547–15556

Field friendly method for wild feline semen cryopreservation

– Gediendson Ribeiro de Araujo, Thyara de Deco-Souza, Leticia Coelho Ferreira Berço, Leanes Cruz da Silva, Ronaldo Gonçalves Morato, Pedro Nacib Jorge-Neto, Maitê Cardoso Coelho da Silva, Gustavo Guerino Macedo & Tarcizio Antônio Rego De Paula, Pp. 15557–15564

Habitat structure determines the abundance of the Endangered Sharpe's Longclaw *Macronyx sharpei* (Aves: Passeriformes: Motacillidae) at Timau montane grasslands in central Kenya

– Dominic Kimani, Muchane Muchai, Johnstone Kimanzi, Joseph Mwangi, Wanyoike Wamiti, Samuel Bakari, Bernhard Walter & Peter Njoroge, Pp. 15565–15571

Avifaunal diversity of some selected water bodies of Khanapur Taluka, Belagavi District, Karnataka, India

– Harsha D. Neelgund & Girish Kadadevaru, Pp. 15572–15586

Herpetofauna of Shuklaphanta National Park, Nepal

– Yam Bahadur Rawat, Santosh Bhattarai, Laxman Prasad Poudyal & Naresh Subedi, Pp. 15587–15611

Varying colour pattern, yet genetically similar: Pebble Crab *Seulocia vittata* (Stimpson, 1858) (Brachyura: Leucosiidae) from the southeastern coast of India

– Sanjeevi Prakash & Amit Kumar, Pp. 15612–15618

Grasses of Kundadri Hills in the Western Ghats of Karnataka, India

– Hanchali Udayashankar Abhijit & Yelugere Linganaik Krishnamurthy, Pp. 15619–15630

Comparative phytosociological assessment of three terrestrial ecosystems of Wayanad Wildlife Sanctuary, Kerala, India

– M. Vishnu Chandran, S. Gopakumar & Anoop Mathews, Pp. 15631–15645

Short Communications

Piroplasmosis in a captive Grant's Zebra *Equus quagga boehmi* (Mammalia: Perissodactyla: Equidae) - a case study

– Sarat Kumar Sahu, Niranjana Sahoo, Bijayendranath Mohanty & Debabrath Mohapatra, Pp. 15646–15650

Eurylophella karelica Tiensuu, 1935 (Insecta: Ephemeroptera: Ephemerellidae) – an additional species to the mayfly fauna of Ukraine and notes on distribution of the family in the country

– Alexander V. Martynov, Pp. 15651–15654

Some new records of katydids (Orthoptera: Tettigoniidae) from Uttar Pradesh, India

– Ramesh Singh Yadav & Dharmendra Kumar, Pp. 15655–15660

Notes

On the occurrence of Honey Badger *Mellivora capensis* (Mammalia: Carnivora: Mustelidae) in the northern Eastern Ghats of Andhra Pradesh, India

– Vikram Aditya, Yogesh Pasul & Ganesh Thyagarajan, Pp. 15661–15663

Assamese Cat Snake *Boiga quincunciata* (Wall, 1908) (Reptilia: Squamata: Colubridae) - new country record for Bhutan

– Lekey Chaida, Abhijit Das, Ugyen Tshering & Dorji Wangdi, Pp. 15664–15667

Loss of Critically Endangered Hawksbill Turtle nesting beach at EGA facility, Abu Dhabi, UAE

– D. Adhavan, Pp. 15668–15670

Meliola elaeocarpicola sp. nov. (Ascomycetes, Meliolales) from Malabar Wildlife Sanctuary in Kerala State, India

– Lini K. Mathew & Jacob Thomas, Pp. 15671–15674

Member



Publisher & Host

