



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)

NOTE

FIRST RECORD OF THE HAWKMOTH *THERETRA LYCETUS* (CRAMER, 1775) (SPHINGIDAE: MACROGLOSSINAE) FROM BHUTAN

Sangay Nidup & Jatishwor Singh Irungbam

26 February 2020 | Vol. 12 | No. 3 | Pages: 15385–15386

DOI: 10.11609/jott.5578.12.3.15385-15386



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





First record of the hawkmoth *Theretra lycetus* (Cramer, 1775) (Sphingidae: Macroglossinae) from Bhutan

Sangay Nidup¹ & Jatishwor Singh Irungbam²

¹ Ministry of Agriculture and Forest, Department of Forest and Park Services, Wangdue Forest Territory Division, Wangdue Range Office, Wangdue Phodrang 14001, Bhutan.

² Institute of Entomology, Biology Center CAS, Branisovská 1160/31 CZ-37005, České Budějovice, Czech Republic; Faculty of Science, University of South Bohemia, Branisovská 1760, CZ-37005, České Budějovice, Czech Republic.

¹sanzellsom@gmail.com, ²jatishwor.irungbam@gmail.com (corresponding author)

The genus *Theretra* Hübner [1819] comprises small to medium sized, nocturnal hawkmoths belonging to subfamily Macroglossinae, tribe Macroglossini, subtribe Choerocampina (Kawahara et al. 2009). The adults of this genus feed mainly on nectar from flowers and are frequently attracted to light (Bell & Scott 1937). Of the 58 species reported from the Indian subcontinent, seven species have been recorded from Bhutan: *T. alecto* (Linnaeus, 1758), *T. clotho* (Drury, 1773), *T. nessus* (Drury, 1773), *T. oldenlandiae* (Fabricius, 1775), *T. silhetensis* (Walker, 1856), *T. tibetiana* Vaglia & Haxaire, 2010 (Irungbam & Irungbam 2019), and *T. sumatrensis* (Joicey & Kaye, 1917) (Lam Norbu, pers comm.). In the present paper we report the sighting of *Theretra lycetus* (Cramer, 1775) from Bajo Town, Wangdue Phodrang of central Bhutan.

Theretra lycetus was described by Pieter Cramer as *Sphinx lycetus* (Cramer, 1777), but the species was later transferred to the genus *Theretra* by Kirby (1892). It has been recorded from Nepal, southern & northeastern India, the Andamans, Sri Lanka, Myanmar, Thailand,

Laos, Cambodia, Vietnam, and Malaysia (https://mol.org/species/map/Theretra_lycetus). The species is easily identified by the pale longitudinal double lines on the upperside of the abdomen becoming indistinct posteriorly, the darker pinkish-brown forewing upperside with strong postmedial lines and intervening pale bands, the hindwing upperside with a reddish medial band of variable width, and outer row of forebasitarsal spines with additional spines.

A single specimen of *Theretra lycetus* was photographed (Image 1) on the evening of 14 May 2019, at 18.10h, on the wall of the Wangdue Forest Range Office, Bajothang Town (27.4861 N, 89.8977 E; 1,216m) in Wangduephodrang District, Bhutan (Figure 1). The surrounding vegetation is dominated by an invasive small perennial shrub, *Lantana camara* L. (family Verbenaceae) and the wider area is cultivated with plants of family Vitaceae, which is one of the larval food plant families of *Theretra lycetus*. The specimen was subsequently identified by first author referring to Inoue et al. (1997) and then confirmed by Jean Haxaire, Muséum national d'Histoire naturelle, Paris,

Editor: Ian J. Kitching, Natural History Museum, London, U.K.

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

Citation: Nidup, S & J.S. Irungbam (2020). First record of the hawkmoth *Theretra lycetus* (Cramer, 1775) (Sphingidae: Macroglossinae) from Bhutan. *Journal of Threatened Taxa* 12(3): 15385–15386. <https://doi.org/10.11609/jott.5578.12.3.15385-15386>

Copyright: © Nidup & Irungbam 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: Grant Agency, University of South Bohemia (GA JU 038/2019/P), Czech Republic.

Competing interests: The authors declare no competing interests.

Acknowledgements: The first author is thankful to the staff of Wangdue Forest Range for their encouragement and support on the documentation of moths in the region. The second author is thankful to Grant Agency, University of South Bohemia (GA JU 038/2019/P), for support during the preparation of the manuscript.

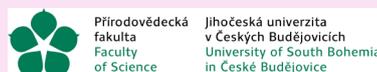




Figure 1. The present sighting locality in Wangduephodrang District, Bhutan.



Image 1. Adult *Theretra lycetus*.

France, through a social media communication (23 May 2019).

Previous studies on the Sphingidae fauna of the Indian subcontinent have reported the presence of this species, from the eastern Himalaya, southern India, Sri Lanka, and Myanmar (Bell & Scott 1937), and Mahakali, Nepal (Kishida 1998), but the studies conducted by Dudgeon (1898) in Sikkim and Bhutan did not record the species from Bhutan. Dierl (1975) reported 10 species of Sphingidae; Irungbam & Kitching (2014) reported 27 species of Sphingidae from Tsirang District; and Geilis & Wangdi (2017) reported 63 species of Sphingidae mainly from the studies conducted in eastern Bhutan, but none of these studies recorded *T. lycetus*. The latest updated checklist of the Sphingidae published by Irungbam & Irungbam (2019) includes 93 species from Bhutan but not *T. lycetus*. New records of Sphingidae, however, continue to accrue for the country. *Clanidopsis exusta* (Butler, 1875) and *Langia zenzeroides* (Moore, 1872) were reported for the first time from Bhutan only in 2019 (Jamtsho & Irungbam 2019; Irungbam & Norbu 2019). Thus, the present sighting of *T. lycetus*

in Bajothang, Wangduephodrang of central Bhutan is significant and important and confirms the presence of the species in central part of the Himalaya.

References

- Bell, T.R.D. & F.B. Scott (1937). The Fauna of British India, including Ceylon and Burma. Moths, Vol. 5, Sphingidae. Taylor and Francis, London. xviii, 537pp., 15pls.
- Cramer, P. (1777). Uitlandsche Kapellen (Papillons exotiques). *Uitl. Kapellen*. 2(9–16): 1–152, pls 97–192.
- Dierl, W. (1975). Ergebnisse der Bhutan-Expedition 1972 des Naturhistorischen Museums in Basel, einige familien der "bombycomorphen" Lepidoptera. *Entomologica Basiliensia* 1: 119–134 [in German].
- Dudgeon, G.C. (1898). A catalogue of the Heterocera of Sikkim and Bhutan, part 2. *Journal of the Bombay Natural History Society* 11(2): 406–419.
- Geilis, C. & K. Wangdi (2017). *A Field Guide to the Common Moths of Bhutan*. National Biodiversity Centre (NBC), Thimphu, 100pp.
- Irungbam, J.S. & I.J. Kitching (2014). A first record of *Clanis hyperion* Cadiou and Kitching, 1990 (Lepidoptera: Sphingidae) in Bhutan, and a preliminary checklist of the hawkmoths of Mendrelgang, Bhutan. *Journal of Threatened Taxa* 6(1): 5386–5388. <https://doi.org/10.11609/JoTT.o3399.5386-8>
- Inoue, H., R.D. Kennett & I.J. Kitching (1997). *Moths of Thailand (Sphingidae)*, Vol. 2. Brothers of St. Gabriel in Thailand, Chok Chai Press, Klong San, Bangkok, 149pp, Colour pls. 44.
- Irungbam, J.S. & M.S. Irungbam (2019). Contributions to the knowledge of moths of Bombycoidea Latreille, 1802 (Lepidoptera: Heterocera) of Bhutan with new records. *Journal of Threatened Taxa* 11(8): 14022–14050. <https://doi.org/10.11609/jott.4358.11.8.14022-14050>
- Irungbam, J.S. & L. Norbu (2019). A new country record of *Langia zenzeroides zenzeroides* Moore, 1872 (Sphingidae: Smerinthinae) from Bhutan. *Journal of the Bombay Natural History Society* 116: 22–24.
- Jamtsho, K. & J.S. Irungbam (2019). White-streaked Hawkmoth: report on the range extension of *Clanidopsis exusta* (Butler, 1875) from Bhutan. *Bugs R All* #170, *Zoo's Print* 34(3): 19–23.
- Kawahara, A.Y., A.A. Mignault, J.C. Regier, I.J. Kitching & C. Mitter (2009). Phylogeny and biogeography of hawkmoths (Lepidoptera: Sphingidae): evidence from five nuclear genes. *PLoS ONE* 4(5): e5719.
- Kishida, Y. (1998). Sphingidae, pp. 40–42. In: Haruta, T. (ed.). *Moths of Nepal, Part 4. Tinea Vol. 15* (Supplement 1). The Japanese Heterocerists' Society, Tokyo, xviii, 206pp., 97–128pls.
- Kirby, W.F. (1892). A synonymic catalogue of Lepidoptera Heterocera (Moths). *Sphinges and Bombyces Syn. Cat. Lepid. Het.* 1: 1–951.



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)

February 2020 | Vol. 12 | No. 3 | Pages: 15279–15406
Date of Publication: 26 February 2020 (Online & Print)
DOI: 10.11609/jott.2020.12.3.15279-15406

www.threatenedtaxa.org

Review

Ramifications of reproductive diseases on the recovery of the Sumatran Rhinoceros *Dicerorhinus sumatrensis* (Mammalia: Perissodactyla: Rhinocerotidae)

– Nan E. Schaffer, Muhammad Agil & Zainal Z. Zainuddin, Pp. 15279–15288

Communications

Diet ecology of tigers and leopards in Chhattisgarh, central India

– Krishnendu Basak, Moiz Ahmed, M. Suraj, B.V. Reddy, O.P. Yadav & Krishnendu Mondal, Pp. 15289–15300

Building walls around open wells prevent Asiatic Lion *Panthera leo persica* (Mammalia: Carnivora: Felidae) mortality in the Gir Lion Landscape, Gujarat, India

– Tithi Kagathara & Erach Bharucha, Pp. 15301–15310

Taxonomic and ecological notes on some poorly known bats (Mammalia: Chiroptera) from Meghalaya, India

– Uttam Saikia, AdoraThabab & Manuel Ruedi, Pp. 15311–15325

Angiosperm diversity in Bhadrak region of Odisha, India

– Taranisen Panda, Bikram Kumar Pradhan, Rabindra Kumar Mishra, Srusti Dhar Rout & Raj Ballav Mohanty, Pp. 15326–15354

Short Communications

Sighting of *Petaurista petaurista* (Pallas, 1766) (Mammalia: Rodentia: Sciuridae) on limestone hills in Merapoh, Malaysia

– Priscillia Miard, Mohd Nur Arifuddin, Izereen Mukri, Siti Syuhada Sapno, Hafiz Yazid, Nadine Ruppert & Jayaraj Vijaya Kumaran, Pp. 15355–15358

Molecular detection of *Murshidia linstowi* in a free-ranging dead elephant calf

– Sourabh Ranjan Hota, Sonali Sahoo, Manojita Dash, Avisek Pahari, Bijayendranath Mohanty & Niranjana Sahoo, Pp. 15359–15363

Parasite commonality at Swamp Deer (Mammalia: Artiodactyla: Cervidae: *Rucervus duvaucelii duvaucelii*) and livestock interface

– Animesh Talukdar, Bivash Pandav & Parag Nigam, Pp. 15364–15369

Prevalence and seasonal variation of gastrointestinal parasites among captive Northern Pig-tailed Macaque *Macaca leonina* (Mammalia: Primates: Cercopithecidae)

– Phoebe Lalremruati & G.S. Solanki, Pp. 15370–15374

New record of *Tulostoma squamosum* (Agaricales: Basidiomycota) from India based on morphological features and phylogenetic analysis

– Arun Kumar Dutta, Soumitra Paloi & Krishnendu Acharya, Pp. 15375–15381

Notes

An account of a first record of the Common Goldeneye

***Bucephala clangula* Linnaeus, 1758 (Aves: Anseriformes: Anatidae) in Bhutan**

– Sangay Nidup, Gyeltshen & Tshering Tobgay, Pp. 15382–15384

First record of the hawkmoth *Theretra lyctetus* (Cramer, 1775) (Sphingidae: Macroglossinae) from Bhutan

– Sangay Nidup & Jatishwor Singh Irungbam, Pp. 15385–15386

Occurrence and association of the Scarce Lilacfork

***Lethe dura gammiei* (Moore, [1892]) (Lepidoptera: Nymphalidae: Satyrinae) with Woolly-leaved Oak *Quercus lanata* Smith, 1819 (Fabaceae) forest in the Kumaon region of the Indian Himalaya**

– Arun P. Singh & Tribhuwan Singh, Pp. 15387–15390

Additions to the Odonata (Insecta) fauna of Asansol-Durgapur Industrial Area, West Bengal, India

– Amar Kumar Nayak, Pp. 15391–15394

***Gynochthodes cochinchinensis* (DC.) Razafim. & B. Bremer (Morindeae: Rubioideae: Rubiaceae): an addition to the woody climbers of India**

– Pradeep Kumar Kamila, Prabhat Kumar Das, Madhusmita Mallia, Chinnamadasamy Kalidass, Jagayandatt Pati & Pratap Chandra Panda, Pp. 15395–15399

Record of *Oldenlandia hygrophila Bremek.* (Spermacoceae: Rubiaceae), a lesser known herb from Palghat Gap of Western Ghats, Kerala, India

– Vadakkevedu Jagadesh Aswani, Vasudevan Ambat Rekha, Pathiyil Arabhi, Manjakulam Khadhersha Jabeena, Kunnamkumarath Jisha & Maya Chandrashekar Nair, Pp. 15400–15404

Book Review

The State of Wildlife and Protected Areas in Maharashtra: News and Information from the Protected Area Update 1996-2015

– Reviewed by L.A.K. Singh, Pp. 15405–15406

Member



Publisher & Host

