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## Journal of Threatened Taxa

Building evidence for conservation globally

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

### NOTE

**A NOTE ON THE DISTRIBUTION OF TWO HIGHLY THREATENED BUTTERFLIES IN SRI LANKA (LEPIDOPTERA: LYCAENIDAE: *SPINDASIS GREENI* AND *RAPALA LANKANA*), WITH A REPORT ON THE RANGE EXTENSION OF *S. GREENI***

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26 November 2017 | Vol. 9 | No. 11 | Pp. 10971–10973  
10.11609/jott.3274.9.11.10971-10973



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**A NOTE ON THE DISTRIBUTION OF TWO HIGHLY THREATENED BUTTERFLIES IN SRI LANKA (LEPIDOPTERA: LYCAENIDAE: *SPINDASIS GREENI* AND *RAPALA LANKANA*), WITH A REPORT ON THE RANGE EXTENSION OF *S. GREENI***

Tharaka Sudesh Priyadarshana<sup>1,2,4</sup>, Ishara Harshajith Wijewardhane<sup>3,4</sup> & Mithila Karunarathna<sup>5</sup>

<sup>1</sup> College of Forestry, Guangxi University, No. 100 Daxue Road, Nanning, Guangxi 530004, People's Republic of China

<sup>2</sup> Block 798, Woodlands Drive 72, #04-65, S730798, Singapore

<sup>3</sup> Sri Lanka School of Agriculture, Department of Agriculture, Karapinchcha, Kuruwita, Sri Lanka

<sup>4</sup> Nature Explorations and Education Team, No: B-1 / G-6, De Soysapura, Moratuwa, 10400, Sri Lanka

<sup>5</sup> 1/15, Temple Road, Warakapola, 71600, Sri Lanka

<sup>1</sup> tharakas.priyadarshana@gmail.com (corresponding author),

<sup>2</sup> isharaarulzz777@gmail.com, <sup>3</sup> xxmithilaxx@gmail.com

Sri Lanka has a rich butterfly fauna comprising 247 species recorded from several eco climatic zones (Gunawardana et al. 2015; van der Poorten & van der Poorten 2016). The Sri Lankan butterflies also have peculiar distribution ranges regarding the different climatic zones within the island (MOE 2012; van der Poorten 2012; van der Poorten & van der Poorten 2016). Vegetation types, regulated by climate, topography and the underlying geology of the land, largely determine butterfly distribution in Sri Lanka due to the varied range of butterfly larval feeding plants (van der Poorten 2012; van der Poorten & van der Poorten 2016).

Thus far, no detailed studies have been made on the distribution pattern of butterflies in different climatic zones (MOE 2012). Based on the available information,

however, some are specialized to either the wet or dry zone, while the majority are generalized to both the zones, including the intermediate zone (Woodhouse 1949; d'Abreu 1998; van der Poorten & van der Poorten 2016). This paper presents data on the distribution of two species of butterflies, viz., Malabar Flash *Rapala lankana* and Sri Lankan Green's Silverline *Spindasis greeni* in Sri Lanka. Of the two species, the latter is endemic to Sri Lanka (van der Poorten 2012).

The survey of butterflies was made during 2013–2014. Observations were made using a Pentax 8x42/7.5° binocular (Japan) and records were made by photographing butterflies using a Canon EOS 700D digital SLR fitted with a 100mm macro lens (Japan). Identification of species was done by reference to literature (Woodhouse 1949; d'Abreu 1998; van der Poorten & van der Poorten 2016). Both observations of *S. greeni* and *R. lankana* were made at Adam's Peak (Samanala Nature Reserve). The new locality of *S. greeni* from Adam's Peak (Samanala Nature Reserve) denotes a range extension for the species. Samanala Nature Reserve, commonly called Peak Wilderness Sanctuary or Adam's Peak / Sri Pada (2,245m), is one of "the most constantly wet parts of Asia west of Borneo" (Greller et al. 1987), which belongs to the western half of the southern arc of the central massif of Sri Lanka (Gunatilleke et al. 1996). The vegetation of Samanala Nature Reserve (Adam's Peak) ranges from lowland rainforest to montane rainforest, including sub-montane rainforest (Gunatilleke et al. 1996; Ashton et al. 1997). A



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

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DOI: <http://doi.org/10.11609/jott.3274.9.11.10971-10973> | ZooBank: <urn:lsid:zoobank.org:pub:9B37E485-1061-4C50-A891-7306F702B57C>

Editor: George Mathew, Kerala Forest Research Institute, Peechi, India.

Date of publication: 26 November 2017 (online & print)

Manuscript details: Ms # 3274 | Received 07 January 2017 | Final received 06 October 2017 | Finally accepted 29 October 2017

Citation: Priyadarshana, T.S., I.H. Wijewardhane & M. Karunarathna (2017). A note on the distribution of two highly threatened butterflies in Sri Lanka (Lepidoptera: Lycaenidae: *Spindasis greeni* and *Rapala lankana*), with a report on the range extension of *S. greeni*. *Journal of Threatened Taxa* 9(11): 10971-10973; <http://doi.org/10.11609/jott.3274.9.11.10971-10973>

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Funding: Self-funded.

Competing interests: The authors declare no competing interests.

Acknowledgements: We wish to thank Keith V. Wolfe (Antioch, California) and Sandun J. Perera (Sabaragamuwa University, Sri Lanka) for commenting on the first manuscript. Leena Priya D/O Segaran (National University of Singapore, Singapore) for editing the manuscript. Yohan B. Jayawardhna (Sabaragamuwa University, Sri Lanka) for the mapping. We also thank Bushana Kalhara and Ushan D. Gangabadage for the support given.



brief account of the observations on the two species is given below.

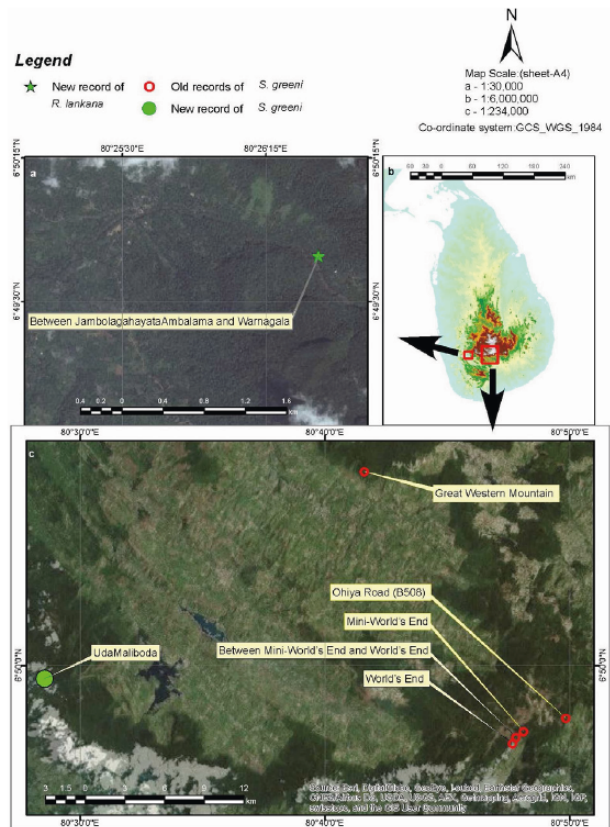
### *Spindasis greeni* Heron, 1896 (Sri Lankan Green's Silverline)

The Sri Lankan Green's Silverline is a very rare and endemic species in Sri Lanka that is categorized as highly threatened (Critically Endangered (non Red List); van der Poorten 2012). Heron (1896) described *S. greeni* from a single worn male specimen collected by E.E. Green from Sri Lanka. Although Heron noted the locality of this individual as 'Pundaloya', van der Poorten & van der Poorten (2012) revised it to the Great Western Mountain (6.96451°N & 80.69321°E) as per the original description, which is not too far from Pundaloya (Image 1). The only other records of this species are from World's End in Horton Plains National Park in 2008 and 2012, and from Mini-World's End and the Ohiya Road (B508), which is between Mini-World's End and World's End within the same park, in 2012 (van der Poorten & van der Poorten 2012) (Image 1). Recently, the authors observed an individual of *S. greeni* on Uda-Maliboda Road at Adam's Peak (Samanala Nature Reserve) (6.4927 N & 80.2832 E, elevation 132m) on 14 February 2014 at about 09:24hr, thus extending the range of this species by at least 65km (Image 1). The specimen was seen on the bank of a stream in a wet microhabitat puddling on a wet stone (Image 2) on a sunny morning. Van der Poorten & van der Poorten (2012) lists *S. greeni* as reported only from Horton Plains and the Great Western Mountain, making our record a new locality for the species in Sri Lanka, being a considerable range extension for a small lycaenid butterfly.

### *Rapala lankana* Moore, 1879 (Malabar Flash)

The Malabar Flash is also a highly threatened species in Sri Lanka (Critically Endangered non Red List; van der Poorten 2012) with very few records, "perhaps less than a dozen" (van der Poorten & van der Poorten 2016). An individual of *R. lankana* was observed at Adam's Peak (Samanala Nature Reserve), Kuruwita-Erathna footpath, between Jambolagahayata Ambalama and Warnagala (6.8289 N & 80.4421 E, elevation 710m) during a fieldtrip on 14 November 2013 at about 10:32hr. The specimen was basking on a leaf of a tall tree more than 10m above the ground thus limiting our ability to photograph it, but the species identification is positive and was aided by a Pentax 8x42/7.5° binocular.

These two rare sightings update the known distribution of Sri Lankan butterflies, which we hope will stimulate more butterfly watchers to publish their



**Image 1.** Map showing distribution of *Spindasis greeni* (open circles denote previous distribution and the closed circles denote recent records) and *Rapala lankana* (distribution indicated by star).



**Image 2.** *Spindasis greeni* photographed at Uda-Maliboda, Adam's Peak (Sri Pada) in Samanala Nature Reserve, Ratnapura, Sri Lanka.

unusual observations, thus helping in the conservation planning of Sri Lankan butterflies.

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

November 2017 | Vol. 9 | No. 11 | Pages: 10865–10984

Date of Publication: 26 November 2017 (Online & Print)

DOI: 10.11609/jott.2017.9.11.10865-10984

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