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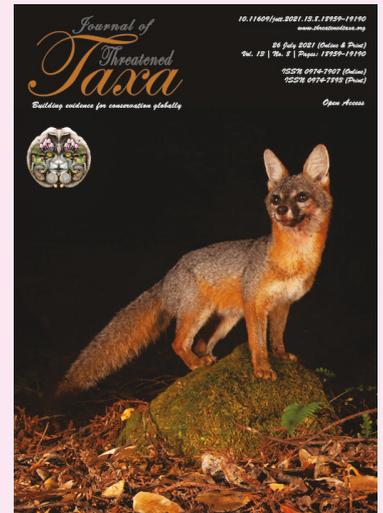
NOTE

REDISCOVERY OF WATSON'S DEMON *STIMULA SWINHOEI* *SWINHOEI* (ELWES & EDWARDS, 1897) (LEPIDOPTERA: HESPERIIDAE: HESPERIINAE) IN MEGHALAYA, INDIA AFTER 60 YEARS

Suman Bhowmik & Atanu Bora

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Rediscovery of Watson's Demon *Stimula swinhoei swinhoei* (Elwes & Edwards, 1897) (Lepidoptera: Hesperidae: Hesperinae) in Meghalaya, India after 60 years

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The monotypic genus *Stimula* is represented by a single species Watson's Demon *Stimula swinhoei* (Varshney & Smetacek 2015). *Stimula swinhoei* was first introduced as *Watsonia swinhoei* by Elwes & Edwards in 1897 through the type specimens of Col. Swinhoei. Later, this species was treated as *Stimula swinhoei* (Evans 1932, 1949). Altogether two subspecies occur: *Stimula swinhoei swinhoei* – Khasi Hills, Sikkim, Assam, Sadon, northern Myanmar, and North Shan State and *Stimula swinhoei disca* – Myanmar, northern Thailand, Laos, and Yunnan. The Indian subspecies was last recorded by Cantlie from Khasi Hills, Meghalaya in 1956 (Cantlie 1956). Since then, there is no record of the species in Meghalaya (Radhakrishnan et al. 1989; Alfred 1999; Hatter et al. 2004; Kunte et al. 2012; Sondhi et al. 2013). The subspecies *swinhoei* is, however, recently recorded from Panbari Reserve Forest, Assam (Gogoi 2013). This observation discusses the rediscovery of the Indian subspecies after a gap of 60 years for Meghalaya along with small note on its identification and current habitat of the butterfly in the state (Image 1).

The present rediscovery is based on an opportunistic survey in Khasi hills as a part of the butterfly inventory and monitoring programme of northeastern India. On 20 February 2016 at about 1245 h, one of the authors,

Atanu Bora photographed a skipper butterfly feeding on bird droppings adjacent to a hill stream in Riwai village (25.196N & 91.900E; at approximately 430m), Meghalaya. The butterfly exactly matched the original description of the underside of *Stimula swinhoei* in the published literature (Elwes & Edwards 1897; Evans 1949).

Stimula swinhoei is identical to *Ancistroides nigrita* but differs in the following characters (Elwes & Edwards 1897; Evans 1932, 1949):

1. *Stimula swinhoei*: The marginal third of only forewing paler. Additionally, large pale area on the dorsum of upperside forewing (hidden in the documented photographs). Underside hindwing uniformly dark brown (Image 3).

2. *Ancistroides nigrita*: The marginal third of both wings paler. Underside forewing dorsum not pale brown unlike *Stimula swinhoei* (Image 3).

Stimula swinhoei was last recorded by Cantlie from Khasi Hills of Meghalaya in 1956. However, none of the authors has recorded this species in Meghalaya afterwards. This rediscovery indicates that a population of the butterfly still exists in some restrictive habitats of Khasi hills. Currently, no information is available on

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Image 1. Locality where *Stimula swinhoei swinhoei* was recorded in Meghalaya.



Image 2. Photographic record of *Stimula swinhoei swinhoei* in Riwai village, Meghalaya.

ecology of the species in India. Our observation suggests that *Stimula swinhoei* can be found perching on the hill streams inside forest (Image 4). During daytime, the species can be found puddling on rocks, wet patches and bird droppings nearby hill streams or waterfalls. Additional records in future surveys will help to map the distribution of this species in the Indian subcontinent. The

species might have been overlooked in the past historic works because of its close similarity with *Ancistroides nigrita*. We strongly hope that our observation will help Lepidopterists and butterfly enthusiast across the country in identification of the species and the habitat information can be used for proper monitoring of this butterfly in future.

References

- Alfred J.R.B. (1999). *Fauna of Meghalaya-Part 6*. Insecta (Diptera and Lepidoptera). ZSI, Calcutta, I-IV, 537pp.
- Cantlie, K. (1956). Hesperiidæ of Khasi and Jaintea Hills. *Journal of the Bombay Natural History Society* 54: 212–215.
- Elwes, H.J. & J. Edwards (1897). A Revision of the Oriental Hesperiidæ. *Transaction of Zoological Society London* 14(4): 101–324.
- Evans, W.H. (1932). *The Identification of Indian butterflies* (2nd Ed.), Bombay Natural History Society, Bombay, x+454pp+32pl.
- Evans, W.H. (1949). *A Catalogue of the Hesperiidæ from Europe, Asia and Australia in the British Museum (Natural History)*. London, 502pp.
- Gogoi, M.J. (2013). Notes on some skipper butterflies (Lepidoptera: Hesperiidæ) from Panbari Forest and its adjoining areas, Kaziranga-Karbi Anglong, upper Assam, India. *Journal of Threatened Taxa* 5(13): 4759–4768. <https://doi.org/10.11609/JoTT.o3340.4759-68>
- Hatter, S.J.S., N. Sen, M. Rosamma & S. Sharma (2004). Faunal Diversity of Saipung Wild Life Sanctuary / Narpuh Reserve Forest, Jaintia Hills, Meghalaya. Conservation Area Series 21. Zoological Survey of India, Kolkata, 66pp.



Image 3. Side wise comparison between (a) *Stimula swinhoei swinhoei* and (b) *Ancistroides nigrita diocles*.



Image 4. A view of the habitat in Riwai village where *Stimula swinhoei swinhoei* was recorded in Meghalaya.

Kunte, K., S. Sondhi, B. Sangma, R. Lovalekar, K. Tokekar & G. Agavekar (2012). Butterflies of the Garo Hills of Meghalaya, northeastern India: their diversity and conservation. *Journal of Threatened Taxa* 4(10): 2933–2992. <https://doi.org/10.11609/JoTT.o2945.2933-92>

Radhakrishnan, C., J.R.B. Alfred & M.R. Rynth (1989). *Butterflies of Shillong and Its Environs*. Science & Technology Cell, Govt of Meghalaya, Shillong, 70pp.

Sondhi, S., K. Kunte, G. Agavekar, R. Lovalekar & K. Tokekar (2013). *Butterflies of the Garo Hills*. Samrakshan Trust (New Delhi), Titli Trust (Dehradun) and Indian Foundation for Butterflies (Bengaluru), xvi+200pp.

Varshney, R.K. & P. Smetacek (2015). *A Synoptic Catalogue of the Butterflies of India*. Butterfly Research Centre, Bhimtal and Indinov Publishing, New Delhi, ii+261pp+8pl.





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