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Note

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First records of *Agnidra vinacea* (Moore, 1879) (Lepidoptera: Drepanidae: Drepaninae) from the western Himalaya, extending its known range westwards

Pritha Dey [1] & **Sanjay Sondhi** [2]

[1] Wildlife Institute of India, Chandrabani, Dehradun, Uttarakhand 248002 India.
[2] Titli Trust, 49 Rajpur Road Enclave, Dhoran Khas, Dehradun, Uttarakhand 248001, India.
[2] Indian Foundation for Butterflies. C-703, Alpine Pyramid, Rajiv Gandhi Nagar, Bengaluru Karnataka 560097, India.
[1] dey.pritha126@gmail.com (corresponding author),
[2] sanjay.sondhi1@gmail.com

The genus *Agnidra* Moore, [1868] has an oriental distribution and there are four species of this genus recorded from India till now; *A. specularia* (Walker, 1866), *A. corticata* (Warren, 1922), *A. vinacea* (Moore, 1879) and *A. discispilaria* (Moore, [1868]) all of them distributed in NE India, Sikkim, Darjeeling (West Bengal) and from Uttarakhand, only *A. discispilaria* has been reported from the Gangotri Landscape (Sanyal 2015; Uniyal et al. 2016). This paper reports the first distribution records of *A. vinacea* from Uttarakhand, western Himalayas.

Agnidra vinacea (Moore, 1879) is a member of the family Drepanidae, subfamily Drepaninae. It was described as *Drepana vinacea* by Moore,1879 from Darjeeling, West Bengal. Hampson (1892) lists the species distribution as "Sikkim". Subsequently, in a series of publications on Indo-Australian Drepanids, Watson (1961; 1968) lists records of this species from Darjeeling (West Bengal), Khasis (Meghalaya), Naga Hills (Nagaland), Pedong (Sikkim) and Kambaiti (NE Burma). Haruta (1992) reports this species from Nepal, extending its range westwards. Digital Moths of Asia (http://www.jpmoth.org) reports this species from Thailand as well. *Agnidra vinacea* has an ochreous-brown upperside; suffused with purple. A narrow black band from the apex crosses to the middle of the abdominal margin, which bends indistinctly at the costa. A black streak extends from apex to below the angle of the band. Both fore and hindwing have indistinct transverse sub-basal and sub-marginal wavy darker lines and two black-speckled grey-bordered spots are there at the end of the cell. Underside is ochreous-yellow, with indistinct spots at the end of the cell; forewing has a dusky-brown fascia from the apex. Forelegs above and the antennae are blackish in colour (Moore 1879).

Discussion: On 15 April 2018 at 21.06h, during an opportunistic visit to Koti Kanasar village, near Chakrata in Dehradun District (29.702^{0}N & 79.734^{0}E, 1,682m) SS recorded the moth species *Agnidra vinacea* (Moore, 1879) at the Kanasar Ecolodge. The moth was sighted on the wall of the Kanasar Ecolodge, near an incandescent light bulb. Subsequently, PD recorded *Agnidra vinacea* (Moore, 1879) at Gondi, near Mandal Village (30.007^{0}N & 79.004^{0}E, 1,600m) and Kanchula Kharak (30.007^{0}N & 79.75^{0}E, 2,600m) in Kedarnath Wildlife Sanctuary during April-May, 2018. PD did the study by sheet-light method using lepiLED (Brehm 2017) as a part of a study funded by the Rufford Foundation, United Kingdom. Image 1

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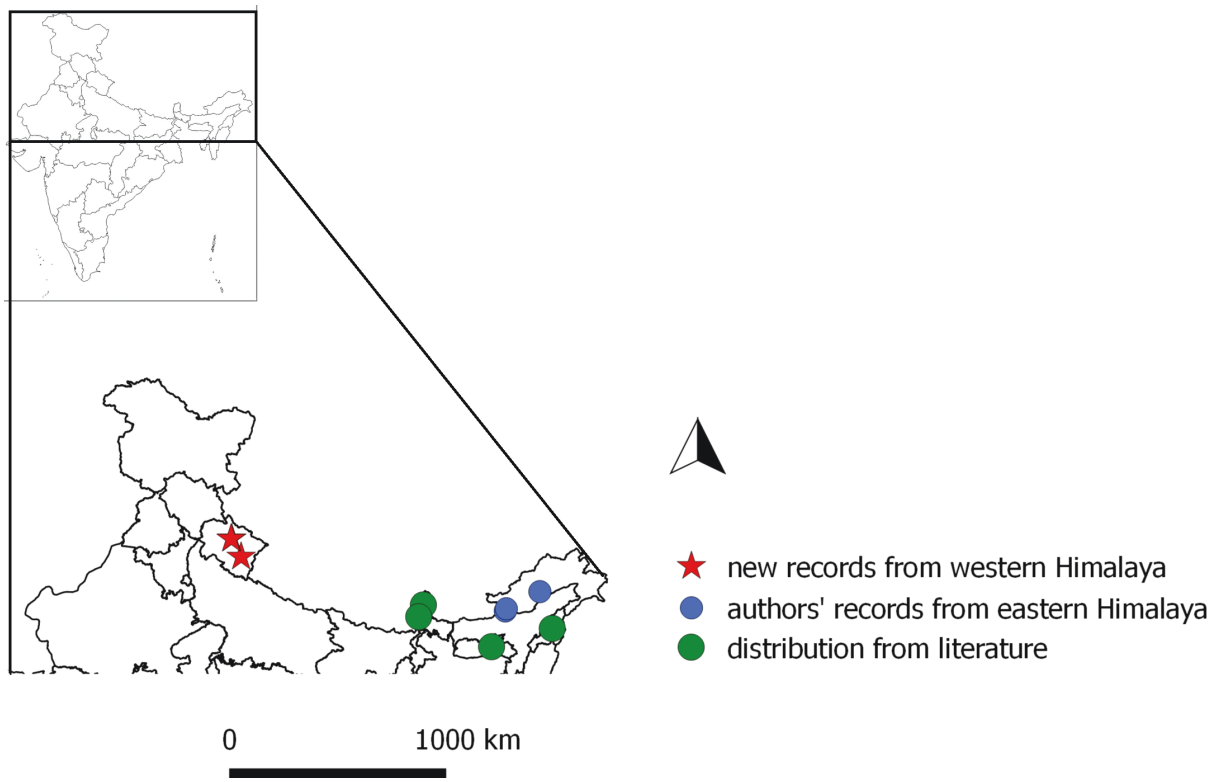

Figure 1. Map showing the different locations of *A. vinacea* from the literature and recorded by the authors.

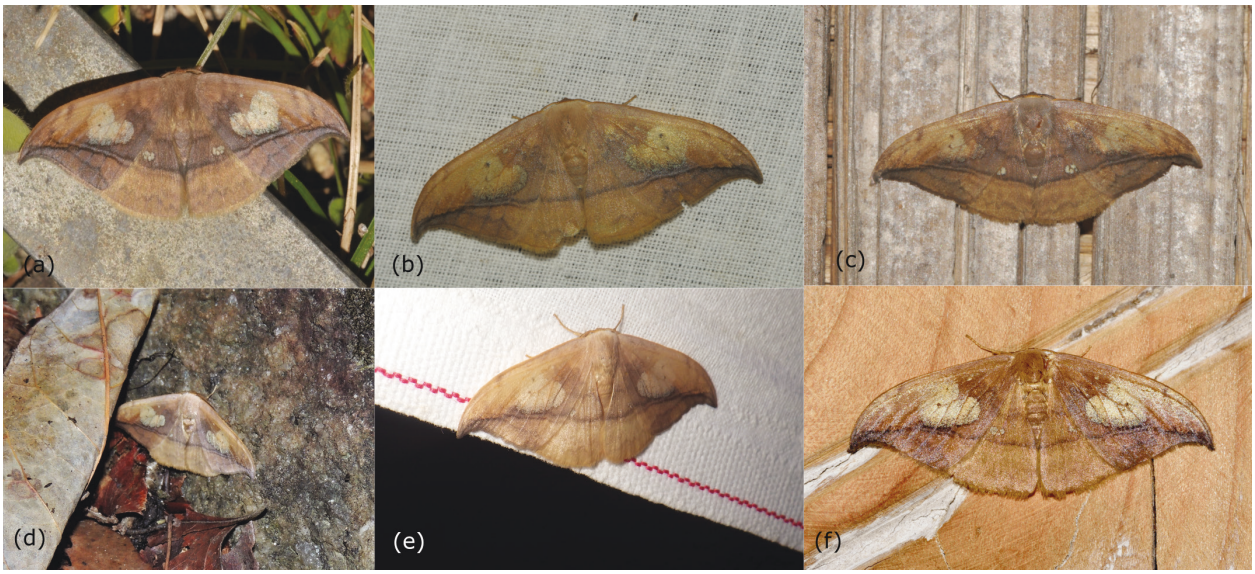

Image 1. Photos of individuals of *A. vinacea* recorded by authors at different locations. From eastern Himalaya (a-c): Lama, Bompu (Eaglenest WS); Talle, Pange and from the western Himalayas (new distribution records) (d-f): Gondi, Kanchula Kharak (Kedarnath WLS); Koti Kanasar, Chakrata. © a–c,f - Sanjay Sondhi | d,e - Pritha Dey.

shows the individuals photographed from different locations in eastern and western Himalayas. Fig. 1 shows locations of *A. vinacea* known from literature, recorded by SS from eastern Himalayas and new records by PD and SS from western Himalayas.

The moths of the western Himalayan state of Uttarakhand are not well studied and documented. Amongst the earliest publications that included

information on the moths of Uttarakhand was a report out on the entomological collection of the Forest Research Institute (Roonwal et al. 1963). Subsequently, Arora et al. (1977) reported on some moths of Garhwal during a Swiss expedition. Arora (1997) reported on Lepidoptera, including moths during an expedition to Nanda Devi Biosphere Reserve. Peter Smetacek, Butterfly Research Center, Bhimtal published numerous papers on the moths of Nainital (Smetacek 2002; 2004; 2008; 2009; 2011). In more recent years, Sanyal et al. (2013; 2017), Sanyal (2015), Sondhi & Sondhi (2016), Uniyal et al. (2016), and Dey (2018) reported on the moths of Uttarakhand. Despite these sporadic documentations, much needs to be studied and understood in the world of moths in Uttarakhand, as well as across the country.

Smetacek (2002) reported on Drepanid moths from Garhwal and Kumaon but makes no mention of records of *Agnidra vinacea* (Moore 1879). Subsequent publications of Smetacek (2004; 2008; 2009; 2011), too, do not make any mention of this species from Uttarakhand. Other more recent publications from Uttarakhand by Sanyal et al. (2013) and Sondhi & Sondhi (2016), which cover Drepanids, too, do not report the presence of *Agnidra vinacea* (Moore, 1879) from Uttarakhand.

Hence, the three recent records of *Agnidra vinacea* (Moore, 1879) from Uttarakhand are the first records of this species from the state, extending its range to the western Himalayas. SS has also recorded this species from numerous locations in Eaglenest Wildlife Sanctuary in West Kameng District (Sondhi et al. 2019) and Talle Valley Wildlife Sanctuary in Lower Subhansiri District of Arunachal Pradesh. SS did not record this species from the Naga Hills, Nagaland and Garo Hills, Meghalaya, which he has surveyed extensively, despite reports in literature of this species from Nagaland and Meghalaya. With these new records, the revised Indian distribution of this species should include Uttarakhand, Sikkim, Arunachal Pradesh, Meghalaya and Nagaland.

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