

## REDISCOVERY OF THE EMPRESS, *SASAKIA FUNEBRIS* LEECH (LEPIDOPTERA: NYMPHALIDAE: NYMPHALINAE: APATURINI) AFTER 88 YEARS IN INDIA

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The Empress, *Sasakia funebris* (Leech, 1891) is reported to be 'very rare' in India (Evans 1932; Wynter-Blyth 1957) and is also listed as a protected species in Schedule I of the Indian Wildlife (Protection) Act, 1972 (Anonymous 1997). The species is included as 'Critically Endangered' in the 'Red Data Book' of Indian Butterflies (Gupta & Mondal 2005) but the taxon has not yet been assessed for the IUCN Redlist (IUCN 2012). The habits and ecology of this species in India are not well known. The species is distinct in appearance with the male having the ground colour black. Its forewing cell has a narrow basal red streak above, which is much wider on the underside, and the hindwing underside has red basal markings. Both wings have the outer halves prominently streaked with dirty white longitudinal V-shaped stripes. The female is similar to the male. Wing expanse: 125–130 mm (Evans 1932).

Four specimens of this species were collected at Yakama (=Jakhama), Naga Hills (Nagaland) at 1520m in July in 1911 and 1912 (Tytler 1915). One male was later collected by O.C. Ollenbach from Jakhama in Naga Hills at ~1800m on 25 June 1924, which is preserved in the National Forest Insect Reference Collection (NFRIC) at the Forest Research Institute, Dehradun. There are

no other published records of this species from Naga Hills thereafter, and its occurrence in India has been reported as doubtful as surveys in Sikkim, eastern Arunachal Pradesh, Assam, Nagaland, Manipur, Meghalaya and Myanmar have failed to record this species (Tytler 1940; Varshney & Shukla 1988; Haribal 1992; Kinyon 2004; Borang et al. 2008; Singh et al. 2011; Gogoi 2012, 2013; Kunte et al. 2012; Sondhi et al. 2013).

The distribution of this species extends from northeastern India through China to Taiwan. *S. funebris* occurs as three sub-species. The subspecies *S.f. funebris* Leech known from Naga Hills in India also occurs in western China, *S.f. genestieri* Oberthür occurs in Yunnan Province in China and *S.f. fuluralis* Matsumura is found in Taiwan. The species has been bred on *Celtis sinensis* in Yunnan, China.

**Discussion:** During the course of a survey on 'Re-assessment of forest types of India', in Upper Debang Valley District of Arunachal Pradesh this species was incidentally photographed on the road side and later identified. The details of this record are presented below (Table 1), along with the images (Image 1 a&b).

At the site where this species was observed, biotic interferences were low although threats to the forests in the area include shifting cultivation, grazing, fuel wood and timber extraction on a minor scale.

The present record extends the known Indian distribution of the species to Arunachal Pradesh (eastern Himalaya) from its previously reported range in the Naga Hills (Evans 1932), a different hill range and this record is more than 200km away from previous records.



ISSN  
Online 0974-7907  
Print 0974-7893

OPEN ACCESS

**DOI:** <http://dx.doi.org/10.11609/JoTT.o3428.4514-6> | **ZooBank:** urn:lsid:zoobank.org:pub:83EAB156-C27B-486E-A4D1-59D49F9C1342

**Editor:** Peter Smetacek, Nature research & adventure in the Himalaya, Nainital, India.

**Date of publication:** 26 June 2013 (online & print)

**Manuscript details:** Ms # o3428 | Received 08 December 2012 | Final received 01 June 2013 | Finally accepted 02 June 2013

**Citation:** Singh, A.P. (2013). Rediscovery of the Empress, *Sasakia funebris* Leech (Lepidoptera: Nymphalidae: Nymphalinae: Apaturini) after 88 years in India. *Journal of Threatened Taxa* 5(10): 4514–4516; <http://dx.doi.org/10.11609/JoTT.o3428.4514-6>

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**Funding:** Indian Council of Forestry Research & Education (ICFRE), Dehradun

**Competing Interest:** None.

**Acknowledgements:** The author is thankful to Dr. H.B. Naithani for identification of plants. Thanks are due to DG, ICFRE and Director, RFRI for providing the necessary facilities. Support of the PCCF and Chief Wildlife Warden of Arunachal Pradesh State Forest Department is duly acknowledged.





Image 1 a&b. Dorsal and ventral view of Empress *Sasakia funebris* recorded near Anini, Upper Debang Valley District, Arunachal Pradesh.

Table 1. Location and details of the habitat where currently sighted and habits of the species

Parameters	Site Details
Location & Coordinates	On Anini-Mippi Road, Debang Valley District, Arunachal Pradesh, 28°49'24"N & 95°52'59"E (Image 2)
Altitude, aspect, slope	1657m; South-west; hilly~65°; Roadside
Time of the day	11:07hr; 13 August 2012; Sunny
Habitat	Mixed sub-tropical broadleaf forest (Image 3)
Dominating tree species	<i>Castanopsis</i> sp., <i>Quercus</i> sp., <i>Rhus succeliana</i> .
Other vegetation	Bamboo <i>Phyllostychus manaii</i> (along the road side near by); <i>Exbucklandia populena</i> , <i>Cinamomum</i> sp., <i>Symplocos</i> sp., <i>Rubus ellipticus</i> , <i>Hedychium</i> sp., ferns, etc.
Habit	This individual preferred to remain in cover but came down to an eroded mud patch along the road to drink during bright sunshine for a minute or so before disappearing again into thick cover above. Subsequent efforts to spot the butterfly from 11:07–11:30 hr and then again from 15:30–16:30 hr, the same day at the same spot, failed.
Morphology	The individual photographed has all the morphological features similar to the specimen kept in NFIRC, Dehradun and as per literature. The colour of the eyes is red as photographed.
Other species sharing the same habitat	Manipur Jungle Queen <i>Sticopthalma sparta</i> (5 no.); Northern Jungle Queen <i>S.camadeva</i> (4 no.); Popinjay <i>Stibochiona nicea</i> (2 no.); Green Duke, <i>Euthalia sahadeva</i> (2 no.).

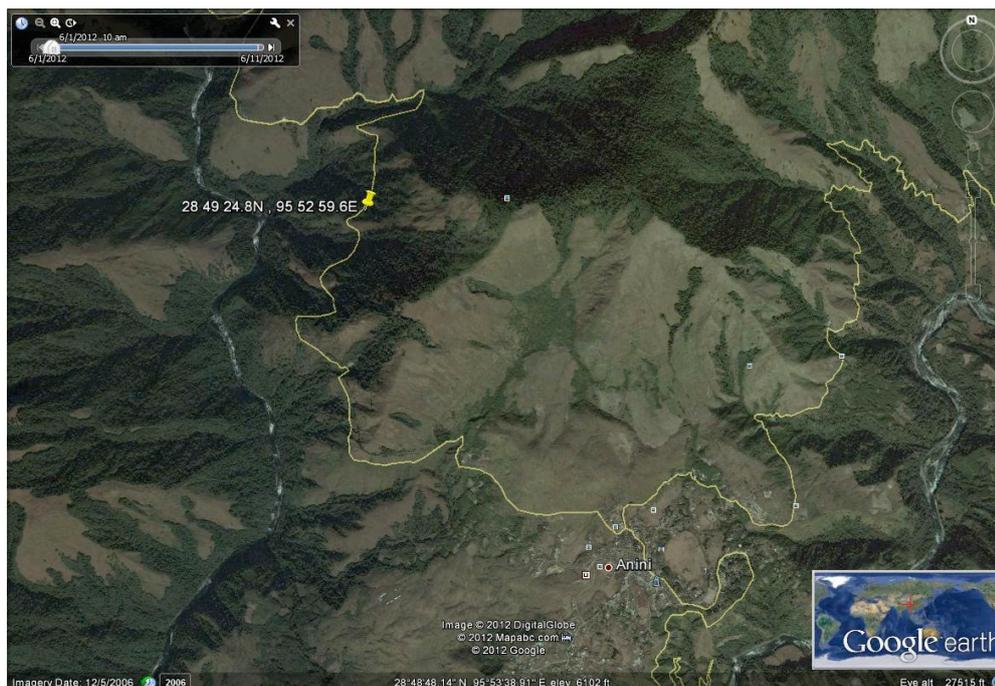


Image 2. Location of the site of present record of the Empress, *Sasakia funebris* near Anini, Upper Debang Valley District, Arunachal Pradesh.



**Image 3.** Mixed sub-tropical broad-leaf forest around the site where the Empress *Sasakia funebris* was recorded.

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