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# **BIONOTES**

### A Quarterly Newsletter for Research Notes and News On Any Aspect Related with Life Forms

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# RECENT SIGHTING OF APPIAS GALBA (WALLACE, 1867) (INSECTA: LEPIDOPTERA: PIERIDAE) FROM DHANSIRI RESERVE FOREST, KARBI ANGLONG, ASSAM, INDIA

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Reviewer: Peter Smetacek

**Abstract**: The present paper reports the first confirmed record *Appias galba* (Wallace) from the Karbi Anglong district of Assam.

Keywords: Indian Orange Albatross butterfly, new distribution record, Northeast India.

### Introduction

The Indian Orange Albatross butterfly, Appias galba (Wallace, 1867), has its distribution range along Eastern Himalayas, Sikkim and Northeast India (Varshney & Smetacek, 2015: Sondhi & Kunte, 2018). In India's northeastern part, A. galba is known from Arunachal Pradesh, Assam, Nagaland and Manipur. The genus Appias Huebner (1819) represents 9 species from India (Varshney & Smetacek, 2015; Irungbam et al., 2020). Out of these 9 species, five species/subspecies are reported from Assam: **Appias** lvncida eleonora (Boisduval, 1836), Appias albina darada (C. & R. Felder, [1865]), Appias galba (Wallace, 1867), Appias lalage lalage (Doubleday, 1842), and Appias indra indra (Moore, 1857) (Norman, 1956; Gogoi, 2013; Mudoi et al., 2015; Singh, 2017). In Assam, A. galba was recorded from upper Assam by Norman in 1953. Gogoi et al. (2016) reported this species from Jeypore Reserve Forest in southern Assam.

### Observations

Appias galba was sighted in Dhansiri Reserve Forest (26°24′52.180″ N; 93°39′51.219″ E) of Karbi Anglong district in Assam India during May 2016 (Figs. 1a, b). From 2016 to 2019 in the Karbi Anglong district, the species was recorded only once from Dhansiri Reserve

Forest during the entire study period. Two individuals were recorded along the open forest area of the reserve forest from 10.00hrs to 11.00hrs, the temperature being 27°C-29°C.

### **Result and Discussion**

Appias galba is bright orange with blackish veins. The butterfly is stated to be rare by Evans (1932). The species has also been reported to be rare by Sondhi & Kunte (2018) and Gogoi et al. (2016). In India, the species is legally protected under Schedule IV of the Wildlife Protection Act, 1972. Not much is known about the ecology of the species. The present finding confirms the presence of A. galba in Karbi Anglong district of Assam. It is the first record of A. galba from Karbi Anglong district of Assam and is an addition to the known distribution of the species.

### Acknowledgement

We are grateful to the local guide for their assistance during the fieldwork. We sincerely thank the Forest Department, Assam, for their co-operation during the entire field study. Special thanks to Mr Monsoon Jyoti Gogoi for helping in the identification of the butterfly.

#### References

Anonymous. 1997. The Wildlife Protection Act, 1992 (as amended up to 1993), with rules until 1995. Natraj Publishers. Dehradun.

Anonymous. 2021. *Appias galba* (Wallace, 1867) – Indian Orange Albatross. Kunte, K., S. Sondhi, and P. Roy (Chief Editors). *Butterflies of India*, v. 3.06. Indian Foundation for Butterflies.

http://www.ifoundbutterflies.org/sp/547/Appi as-galba

Evans W.H. 1932. *The Identification of Indian Butterflies*. Second Edition, Bombay Natural History Society, Mumbai, India, 464 pp.

Gogoi M.J. 2012. Butterflies (Lepidoptera) of Dibang Valley, Mishmi Hills, Arunachal Pradesh, India. *Journal of Threatened Taxa*, **4**(12): 3137-3160.

Gogoi, M.J. 2013. A preliminary checklist of butterflies recorded from Jeypore-Dehing forest, eastern Assam, India. *Journal of Threatened Taxa*, **5**(2): 3684–3696.

Gogoi, M.J., H. Singha & P. Deb. 2016. Butterfly (Lepidoptera) Diversity in Barail Wildlife Sanctuary, Assam, India. *Journal of Entomology and Zoological Studies*, **4**(4): 547-560.

Irungbam, J.S., H. Huidrom & P.S. Elangbam. 2020. Addition of the butterfly *Appias galba* (Wallace, 1867) to the fauna of Manipur, India. *Bionotes*, **22**(3): 112-113.

Mudoi, P., J. Kalita, Gaurab Das & Bitupan Das. 2015. Notes on some interesting

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butterflies (Lepidoptera) from Nambor-Doigrung wildlife Sanctuary, North East India. Journal of Entomology and Zoology Studies, 3: 455-468.

Neog, S. 2015. Butterflies of Gibbon Wildlife Sanctuary. Bhabani Books, Guwahati, 112pp. Norman T. 1953. Notes on the Lepidoptera of Assam-II. Some additions to Assam list and other notes. Journal of the Bombay Natural History Society, 51: 515-517.

Norman T. 1956. Notes on the Lepidoptera of Assam-III. Further additions to the Indian list and other notes. *Journal of the Bombay Natural History Society*, **53**: 738-740.

Singh, A.P. 2017. Butterflies of eastern Assam, India. *Journal of Threatened Taxa*, **9**(7): 10396–10420.

Sondhi, S. & K. Kunte. 2013. *Butterflies and moths of Pakke Tiger Reserve*. Second edition. Titli Trust (Dehradun), National Centre for Biological Sciences (Bengaluru) and Indian Foundation for Butterflies (Bengaluru). vi + 242 pp.

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





Fig. 1 & 2: Adults of *Appias galba*, sighted at Dhansiri Reserve Forest of Karbi Anglong district in Assam