

GLINUS OPPOSITIFOLIUS AS NEW LARVAL HOST PLANT OF DARK GRASS BLUE ZIZEERIA KARSANDRA (INSECTA: LEPIDOPTERA)

¹RAJU KASAMBE & ²DILIP GIRI

¹Bombay Natural History Society, Dr.Sálím Ali Chowk, Shaheed Bhagat Singh Road, Opposite Lion Gate, Mumbai. PIN- 400001. Maharashtra.

¹Email: r.kasambe@bnhs.org

ABSTRACT

Glinus oppositifolius is reported as a new larval host plant for Dark Grass Blue butterfly *Zizeeria karsandra* based on the repeated sightings of egg laying, caterpillars on the plant leaves and its rearing till eclosion of the adult butterfly.

Keywords: Butterfly, larval host records, Maharashtra.

INTRODUCTION

The Dark Grass Blue butterfly *Zizeeria karsandra* (Moore, 1865) (Insecta: Lepidoptera: Lycaenidae) is commonly found in the forests of Sanjay Gandhi National Park and Bombay Natural History Society (BNHS) Nature Reserve, Mumbai, Maharashtra, India, during winter and summer.

The previously reported larval host plants of *Z. karsandra* were summarised by Robinson *et al.* (2010) and later by Nitin *et al.* (2018) as: *Amaranthus spinosus*, *Amaranthus tricolor*, *Amaranthus viridis* (Amaranthaceae), *Geissaspis cristata*, *Zornia diphylla*, *Zornia gibbosa* (Fabaceae), *Oxalis corniculata* (Oxalidaceae) and *Polygonum plebeium* (Polygonaceae).

In this paper, based on repeated sightings of egg laying, caterpillars and its larval rearing till eclosion on leaves of *G. oppositifolius*, we report *G. oppositifolius* as a new larval host plant *Z. karsandra*.

MATERIAL AND METHODS

The Bombay Natural History Society (BNHS) Nature Reserve is a forested area spread over 33 acres and is nestled between Dadasaheb Phalke Chitra Nagari (aka Film City) and Sanjay Gandhi National Park (SGNP) in Mumbai City of Maharashtra, India. The Reserve also has a small butterfly garden spread over an area of around quarter of an acre.

On 16 November 2021, many *Z. karsandra* were seen flying around and laying eggs on flower buds and leaves of a small herb, *Glinus oppositifolius* and on the flowers of another herb, *Glinus lotoides* (both Family: Molluginaceae).

On 18 November 2021, we found at least 20 eggs and two caterpillars on the same *G. oppositifolius* plant and 2 eggs on the same *G. lotoides* plant flowers. Of these, one egg and two caterpillars on *G. oppositifolius* were collected and reared in butterfly rearing containers.

The egg hatched and presence of a caterpillar in the container was ascertained from the presence of frass. The caterpillar was reared by feeding fresh leaves of the same plant. A pupa was found on 2 December 2021 and an adult *Z. karsandra* eclosed on 6 December 2021.

The two remaining caterpillars were reared and they pupated on 25 November and 2 December 2021. Adult *Z. karsandra* butterflies eclosed on 1 December and 8 December 2021 respectively (pupal diapause of 6 and 7 days respectively).

One more egg was collected on 25 November 2021 on the same plant. A small amount of frass was noted in the container on 27 November 2021. A pupa was seen on 9 December from which an adult eclosed on 14 December 2021 (pupal diapause 6 days).

The caterpillars hatched from eggs found on *G. lotoides* could not be reared; it is likely that *G. lotoides* is also a larval host plant for the species.

CONCLUSION

The repeated observations of egg laying and rearing of caterpillars till eclosion proves *G. oppositifolius* to be a larval host plant of *Z. karsandra*. Looking at the list of larval host plants reported previously, this is clearly a new record of the larval host plant for *Z. karsandra*.

ACKNOWLEDGEMENTS

Thanks to Ms. Kiran Thumma (Education Officer, BNHS CEC) for help in identification of the plants.

REFERENCES

- Nitin, R., V. C. Balakrishnan, P. V. Churi, S. Kalesh, S. Prakash, and K. Kunte. 2018. Larval host plants of the butterflies of the Western Ghats, India. *Journal of Threatened Taxa* 10: 11495–11550.
- Robinson, G.S., P.R. Ackery, I.J. Kitching, G.W. Beccaloni & L.M. Hernández. 2010. HOSTS - A Database of the World's Lepidopteran Hostplants. Natural History Museum, London. <http://www.nhm.ac.uk/hosts>. As accessed on 01 October 2021.



Figure 1: Dark Grass Blue egg on *Glinus oppositifolius* flower



Figure 2: Dark Grass Blue egg



Figure 3: Dark Grass Blue caterpillar



Figure 4: Dark Grass Blue pupa



Figure 5: Freshly enclosed adult Dark Grass Blue



Figure 6: *Glinus oppositifolius* plant