Dakhan Tricolour Pied Flat: new distribution record for Rajasthan, India

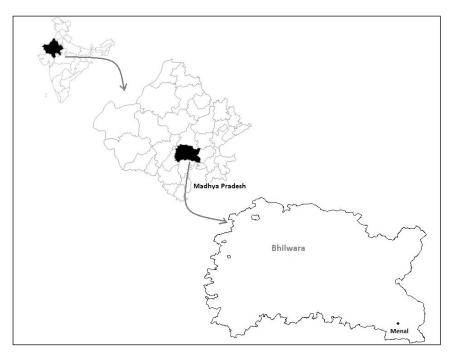
The Tricolour Pied Flat *Coladenia indrani* (Moore, 1866), is a butterfly of subfamily Pyrginae of family Hesperiidae (family of skippers). It is a medium-sized butterfly (Image 1) with a wingspan of 40–46 mm. Its dry season form is deep orange with bright yellow marginal spots while the wet season has uniform colour with ochreous hue. Upper forewing has large semitransparent spots and a marginal row of yellow opaque spots. Dark spots on upper hindwing separate and prominent and under hindwing has prominent basal black spots (Evans 1927; Kehimkar 2014). It is represented by three

Subspecies in India. Coladenia indrani indrani
(Moore, 1866) (Himachal Pradesh to northeastern
India excluding Manipur); Coladenia indrani
uposathra (Fruhstorfer, 1911) (Manipur)
Coladenia indrani indra (Evans, 1926)
(Gujarat eastwards to West Bengal and southwards to Kerala; Evans 1949;
Varshney & Smetacek 2016). The
butterfly used to stay on wings from May to

October.

Menal is a Vindhyan gorge in Rajasthan. There is a 142 feet high waterfall in the gorge situated in Bhilwara District of Rajasthan. On our field visit on 16 October 2018 to Menal Gorge (25.2341°N & 75.2399°E), we clicked an image of a butterfly from the gorge bottom, feeding on the flowers of *Lantana camara*. The butterfly was identified as the wet season form of Dakhan Tricolour Pied Flat, *Coladenia indrani indra* (Isaac Kehimkar *facebook* comm. 21.v.2020).

The habitat of the gorge was rocky having dry mixed deciduous type of vegetation which are preferred by Tricoloured Pied Flat (Padhye et al. 2012) including grasses, herbs, shrubs and trees. The important vegetation of the bottom of the gorge are Arjuna *Terminalia arjuna*, Kadamb *Mitragyna parvifolia*, Baheda *Terminalia bellirica*, Makhania Jamun *Syzygium heyneanum*, Umara *Ficus glomerata*, Karmala *Mallotus*



Location of Menal waterfall.

philippensis, and Khajoor Phoenix sylvestris. Among the vegetation present on the slope of the gorge are Dhauk Anogeissus pendula, Kadaya Sterculia urens, Tendu Diospyros melanoxylon, Kala Sirus Albizia odoratissima, Lampan Bridelia retusa, Amaltash Cassia fistula, and Kali Syali Grewia flavescens.

Trees of *Mallotus philippensis* and Grewia sp. are preferential host plants of Tricolour Pied Flat (Kehimkar 2014). The climate of the area is semi-dry type.

Rainwater from the highland takes shape of a stream and falls as a waterfall in the gorge. The presence of water near the waterfall and shady trees maintain high moisture in the gorge in dry season too.

Distribution of the Dakhan
Tricolour Pied Flat in
Rajasthan has not been
recorded previously (Palot
& Soniya 2001; Kehimkar
2014; Sharma 2014;
Kulshrestha & Jain 2016; Saji
et al. 2020). This is widely
distributed in the neighboring

state of Madhya Pradesh. The immediate location in Madhya Pradesh from which this butterfly had been reported was Bhopal (Harsh 2014), having aerial distance of 305 km from Menal Gorge. The butterfly would have reached Menal Gorge through the dry deciduous forests distributed in Madhya Pradesh and eastern and southern Rajasthan. The suitable climate, habitat and favourable vegetation may have attracted the butterfly to the gorge.

This is the first observation of Dakhan Tricolour Pied Flat in Rajasthan and addition to the butterfly fauna of Rajasthan also. Authors are further studying to know its possible geographical range extension in Rajasthan.

References

Evans, W.H. (1927). The Identification of Indian Butterflies - 1st Edition. Bombay Natural History Society, Bombay, 454pp+32pls.

Evans, W.H. (1949). A Catalogue of the Hesperiidae from Europe, Asia and Australia in the British Museum (Natural History). Janbold & Sons Ltd. Norwich. i-xviii, 502pp+53pls.

Harsh, S. (2014). Butterfly Diversity of Indian Institute of Forest Management, Bhopal, Madhya Pradesh, India. *Journal of Insects* 2014: 1–4. https://doi.org/10.1155/2014/254972

Kehimkar, I. (2014). *The Book of Indian Butterflies.* Bombay Natural History Society and Oxford University Press, New Delhi, 497pp.

Kulshrestha, R. & N. Jain (2016). Assessment of Diversity of Butterfly species at Jhalawar, (Rajasthan) India. *Flora and Fauna* 22 (1): 105–107.

Padhye, A., S. Shelke & N. Dahanukar (2012). Distribution and composition of butterfly species along the latitudinal and habitat gradients of the Western Ghats of India. *Check List* 8(6): 1196–1215.

Palot, J.M. & V.P. Soniya (2001). Additions to the Butterflies of Keoladeo National Park, Bharatpur, Rajasthan. *Zoos' Print Journal* 16(5): 495. https://dx.doi.org/10.11609/JoTT.ZPJ.16.5.495

Saji, K., A. Soman, S. Mhatre, P. Churi & P. Manoj (2020). Coladenia indrani (Moore 1866) Tricolour Pied Flat. Kunte, K., S. Sondhi & P. Roy (Chief Editors). Butterflies of India, v.2.86. Indian Foundation for Butterflies. http://www.ifoundbutterflies.org/sp/508/Coladenia-indrani [Accessed on 30 May 2020].

Sharma, G. (2014). Studies on Odonata and Lepidoptera fauna of foothills of Aravalli Range, Rajasthan. Rec. Zoological Survey of India, Occ. Paper. 353: 1–104.

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., 8pls.

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