

# REDISCOVERY OF THE RED ADMIRAL BUTTERFLY *VANESSA ATALANTA* (LEPIDOPTERA: NYMPHALIDAE) IN PAKISTAN AFTER THE ORIGINAL RECORD NEARLY A CENTURY AGO

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## INTRODUCTION

The Red Admiral or European Red Admiral *Vanessa atalanta* (Linnaeus, 1758) is distributed over a wide range from Canary Islands, North Africa, Europe, extreme Western Asia and North America (Bozano & Floriani, 2012; Tshikolovets & Pages, 2016; Smetacek, 2018). It is represented by 2 subspecies: Nominate (Old World subspecies) and *V. a. rubria* Fruhstorfer, 1909 (New World subspecies). The latter is found in North America from Canada to Mexico (Bozano & Floriani, 2012.) It has not so far been reported from Afghanistan (Tshikolovets *et al.*, 2018). In Iran it occurs from south-west (including Zagros mountains) to northern provinces (including Alborz range and along the South Caspian sea) eastwards to North (including Kopet Dagh) and South Khorasan provinces (Nazari, 2003; Naderi, 2019; Alireza Naderi, pers. comm.) There is a single record from Balochistan province, Pakistan (Shinghar, Zhob district) which is also the only confirmed record, so far, from the Indian Sub Continent (Evans,

1932a; Evans, 1932b) This record was cited in all the subsequent works (Peile, 1937; Wynter-Blyth, 1957; Roberts, 2001; Tshikolovets & Pages, 2016, Smetacek, 2018). There was a recent sighting from Mardan, KPK province as well, which could not be confirmed. The only record of *Vanessa indica* (Herbst, 1794) from Balochistan (Pishin district) might be a misidentified *V. atalanta* (Malik, 1971).

## MATERIALS AND METHODS

On 18<sup>th</sup> June 2022 the second author (JE) photographed a *Vanessa* (Nymphalidae) specimen at Ayun Fort, Lower Chitral district, KPK Province, Pakistan. (Figure 1,3) On second occasion the third author (YAH) photographed another identical butterfly at Madaklasht village in Drosh tehsil of district Lower Chitral on 9<sup>th</sup> July 2022 (Figure 2). Photographs of both the individuals were sent to the first author (MAA) for identification who identified them as European Red Admiral (*V. atalanta*). A similar species, Indian Red Admiral (*V. indica* Herbst, 1794] is widespread in Pakistan from Upper Chitral

district and Swat (Hindu Kush range) to the Plains of Charsada in KPK province, foothills of Attock and Rawalpindi districts in Punjab province, northwards to the whole Himalayan region of Pakistan from Islamabad to Kashmir and Gilgit. (Leslie & Evans, 1903; Roberts, 2001; Tshikolovets & Pages, 2016) The differences between the two species are as follows:

Upperside bases blackish in *V. atalanta* vs browner with golden gloss in *V. indica*. Darker crimson-red compact and narrow discal band on upper forewing in *atalanta* vs paler scarlet-red, wider band in *indica* with irregular margins. Unlike *indica* this band is not divided by three large black spots in *atalanta*. On upper forewing, the costal sub-apical spot is white in *atalanta* vs reddish in *indica* and there is always a spot in space 3 in *atalanta* which is always lacking in *indica* (Figure 1, 2, 4). Underside of *atalanta* is a shade darker (Figure 3) than its Indian cousin (Evans, 1932a; Roberts, 2001; Bozano & Floriani, 2012; Smetacek, 2018).

## RESULTS AND DISCUSSION

European Red Admiral (*Vanessa atalanta*) was reported for the first time from the Indian Sub Continent (South Asia) from a specimen collected by Colonel Stockley from Shinghar (Zhob district, Balochistan province) at 2400m altitude on 27<sup>th</sup> 1929 from a *Pinus gerardiana* forest. (Evans, 1932b; Roberts, 2001) and never been reported afterwards (Peile, 1937; Bozano & Floriani, 2012; Tshikolovets & Pages, 2016; Smetacek, 2018), so it is a rediscovery for Pakistan and South Asia after 93 years. These records suggest that *V. atalanta* is more widespread in Pakistan than previously thought and should be looked for in the area between Zhob and Chitral. Roberts (2001) writes that this butterfly may occur in the Suleiman range too. The probable range of this species in

Pakistan stretches along the Afghan border and it will probably be found in Eastern provinces of Afghanistan in future, if explored. These records are also the first report of *V. atalanta* in KPK province.

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Fig 1: Atalanta Ayun Fort (James Eaton)



Fig 2: Atalanta Madaklasht (Yasir Ali Hamza)



Fig 3: Atalanta Ayun fort (James Eaton)



Fig 4: Indica Rawalpindi (Muhammad Akram Awan)