

## ***Pollenia hazarae* (Senior-White, 1923) (Diptera: Polleniidae) a new record from India with a revised key to known Indian species**

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### Abstract

*Pollenia hazarae* (Senior-White, 1923) is recorded for the first time from India. The species has been collected from Indian Himalaya. A key to the known Indian species is provided herewith.

**Key words:** *Pollenia hazarae*, cluster flies, Polleniidae, Diptera, Himalaya, New record

### Introduction

The family Polleniidae includes eight genera and 147 species of which *Pollenia* Robineau-Desvoidy, 1830 is the most speciose genus with 95 species reported from the world. The species of this group are commonly known as cluster flies, as these enter human dwellings to over-winter as adults (Szpila et al., 2022) causing nuisance to building owners. Moreover, their large numbers could result in mechanical transmission of bacterial and viral pathogens in humans (Faulde et al., 2001; Szpila et al., 2022). Females of this group prefer to feed on liquid secretions of vertebrate carrion, whereas larvae parasitize on earthworms, and caterpillars or pupae of noctuid moths.

Earlier genus *Pollenia* was placed within subfamily Polleniinae of family Calliphoridae. Later, molecular studies established Polleniinae as sister group to Tachinidae and has been raised to family level (Winkler et al., 2015; Cerretti et al., 2017; 2019; Kutty et al., 2019; Buenaventura et al., 2021; Yan et al., 2021). Rognes (1987a&b, 1988, 1991a&b, 1992a&b, 2010) divided West Palearctic *Pollenia* into 11 species groups namely: *amentaria*, *pallida*, *vagabunda*, *rudis*, *labialis*, *griseotomentosa*, *haeretica*, *semicinerea*, *tenuiforceps*, *venturi* and *viatica*. Senior-White et al., 1940 recorded two species of *Pollenia* from India, *Pollenia rudis* (Fabricius, 1794) and *Pollenia townsendi* Senior-white, Aubertin & Smart, 1940. The inclusion of *Pollenia vagabunda* (Meigen, 1826) and *Pollenia dasypoda* to the list of Indian Polleniidae by Gisondi et al., 2020 is doubtful (Rognes, 2002). Moreover, *Pollenia hazarae* was earlier reported from Punjab state of undivided India (Senior-White et al. 1940), which now falls in Pakistan but Gisondi et al., 2020 has erroneously indexed it from India. Herein, we report *Pollenia hazarae* (Senior White, 1923), as a new record from the Indian side of the sub-continent.

The specimens of *Pollenia hazarae* were collected from Hafrada village in Kupwara district of Jammu and Kashmir, at an altitude of 1615m above mean sea level. The specimens were collected with the help of fish bait, killed with ethyl acetate vapours and preserved in absolute alcohol for future analysis. For species identification Fauna of British India by Senior-White et al., 1940 was used.

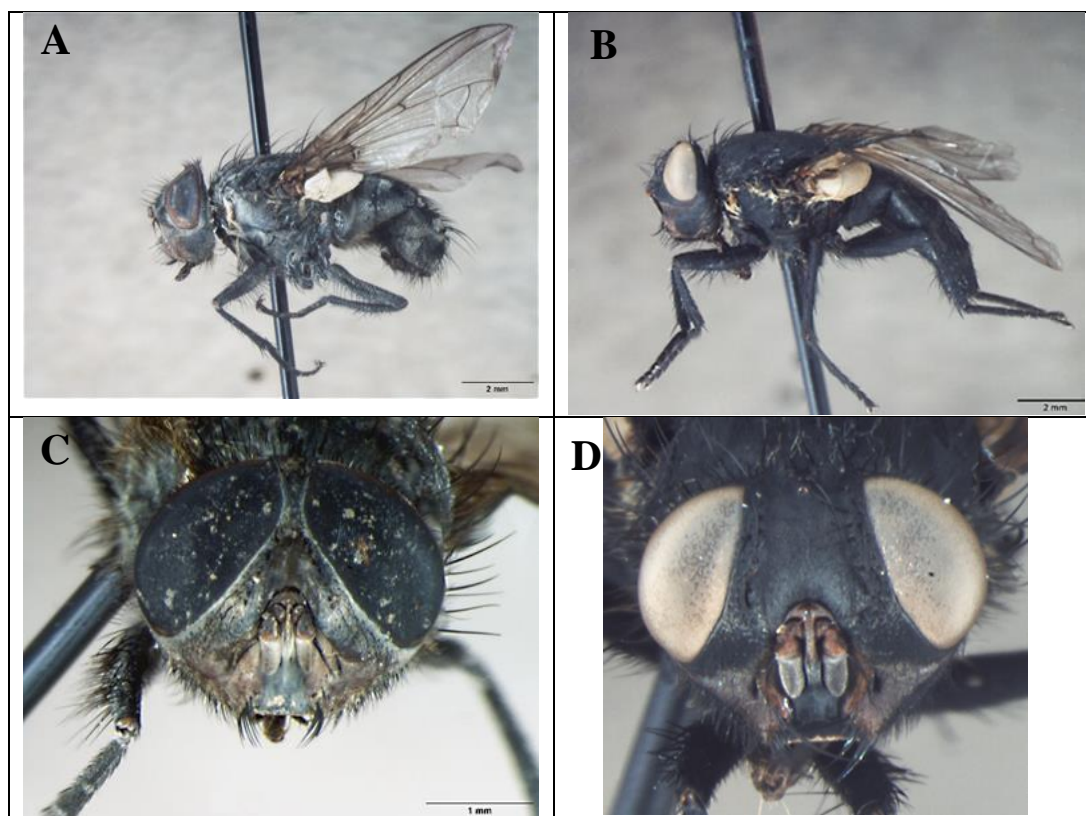
### ***Pollenia hazarae* (Senior-White, 1923)**

*Dexopollenia hazarae* Senior-White, 1923: 51. Type locality: Pakistan, Abbottabad

**Material Examined:** 8♀, 9♂, India, Jammu & Kashmir, Hafrada village, 34.4019° N, 73.9999° E, 1615m, 25-03-23.

**Diagnostic characters of *Pollenia hazarae*:** Males: eyes sub-holoptic, frons reduced to a fine line at the point of closet approximation, parafrota narrow, females: frons 1/3<sup>rd</sup> of head width at the level of

antennae, face black, no golden pile on face or genae, epistome exceptionally developed, 2/5<sup>th</sup> of head height viewed laterally, carina present, palpi black and subclavate (Fig. 1).



**FIGURE 1.** *Pollenia hazarae* (Senior-White, 1923). A. male, profile view; B. female, profile view; C. male, head; D. female, head.

#### Key to the known Indian species of *Pollenia* Robineau-Desvoidy, 1830

1. Propleura with pubescence, palpi orange, facial carina absent ..... *P. townsendi*
- Propleura bare, palpi black to dark brown, facial carina well developed..... **2**
2. Face covered with grey tomentum, first and second antennal segment reddish, third dark brown, palpi dark brown, basicostal scale orange, wing veins orange ..... *P. rudis*
- Face black covered with black hairs, slightly tomentose in male, epistome margin yellow, antennae black, palpi black, basicostal scale brown to black, wing veins brown in colour ..... *P. hazarae*

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