

THE SMALLEST KNOWN INDIAN CABBAGE WHITE *PIERIS CANIDIA* (INSECTA: LEPIDOPTERA: PIERIDAE)

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The largest and smallest members of a species has always attracted attention. In the case of insects that undergo metamorphosis, it is believed the size is determined by the amount of food the larva ate.

Usually, butterflies and moths that are bred in captivity emerge smaller than their wild relatives of the same species. While the largest size a species can attain is a commentary on its ability to take in oxygen, metabolise glucose and enable the functioning of the various systems of its body, the smallest size is usually a commentary on the least amount of food that the species needs to survive. If the larva obtains less than the bare minimum, it will not be able to proceed with metamorphosis and will die of malnutrition.

Panthee & Smetacek (2020) recorded additions to the known size of Indian butterflies, based on specimens in the collection of the Butterfly Research Centre, Bhimtal and the Wankhar Butterfly Museum, Shillong. In that, it was noted that the smallest known specimen of the Indian Cabbage White *Pieris canidia* (Linnaeus, 1768), recorded on 8.iv.2016, had a wingspan of 42 mm and a forewing length of 20 mm, compared to the known expanse of 45-60 mm given by Evans (1932).

On 1.i.2021, a remarkably small specimen of this species was recorded in the garden of the Butterfly Research Centre, Jones Estate, Bhimtal, Uttarakhand (1500 m) by AA.

Its wingspan is 36 mm, compared to 42 mm and the forewing length is 17 mm compared to 20 mm for the previously known smallest specimen of the species, also recorded at the Butterfly Research Centre. Figure 1 shows a four specimens of *P. canidia*, a normal female and male in the top row, the female specimen recorded in 1.i.2021 at bottom left and the previous record holder for the smallest *P. canidia*, a female at bottom right.

It is noteworthy that the two smallest specimens are females, which might translate to an ability to survive harsh periods with the minimum food. The present smallest specimen was collected in January, which might mean that the larva fed in December, when there is not much plant growth due to the cold weather.

References

Evans, W.H. 1932. *The identification of Indian butterflies*. (2nd ed.) Bombay Natural History Society, Bombay. x + 454 + 32 pl.

Panthee, S. & P. Smetacek. 2020. Modifications to the known expanse of Indian butterflies. *Bionotes* 22(2): 69- 74.

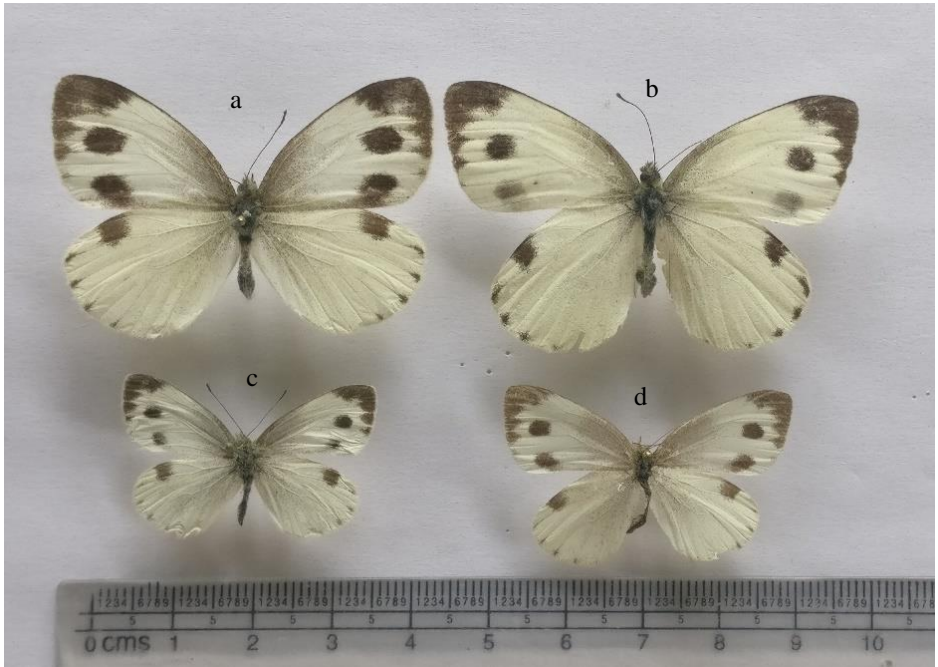


Fig.1: *Pieris canidia*, normal specimen, a. female, b. male, c. new smallest specimen & d. previous smallest specimen