

ON THE OCCURRENCE OF *MARUMBA CRISTATA* (BUTLER 1875), LEPIDOPTERA : SPHINGIDAE, IN SHIMLA, HIMACHAL PRADESH

In an earlier paper on the Hawkmoths (Sphingidae) of the Kumaon Himalaya (Smetacek 1994), *Marumba cristata* (Butler) was noted as a new record for the area. Prior to that study, D'Abrera (1986), Bell & Scott (1937) and Hampson (1892) had recorded this moth from Sikkim eastwards, with a global distribution extending to "China, Taiwan, Peninsular Malaya, Sumatra, Borneo, ?Java and ?Palawan." (D'Abrera 1986). Along this range, the latter author recognized four sub-species.

Bell & Scott (1937) bred a large number of Hawkmoths in India. One of the sites where this work was carried out was Mussoorie and the Dun valley in the Garhwal Himalaya prior to 1937. They did not obtain *M. cristata* in that area, nor did the earlier collectors, such as the Rev. J.H. Hocking, Mr. Graham-Young, Majors Yerbury and Harford in Garhwal and present day Himachal Pradesh. In the Himalaya west of Nepal, Mussoorie, Shimla, Kulu and Dharamsala were by far the best worked localities for moths, with fewer records from other localities such as Almora, Nainital, Dalhousie and Murree. Major Harford, in particular, collected Hawkmoths in Shimla but did not record *M. cristata* there, although he obtained rarities such as *Thamnoecha uniformis* Butler and *Langia zenzeroides* Moore.

In a paper on the Hawkmoths of Kumaon (Smetacek 1994), I suggested that this moth might have extended its range in Kumaon in the period subsequent to Bell & Scott's (1937) study. However, since Kumaon is east of the localities surveyed in the previous studies mentioned above, there was a possibility that *M. cristata* had been established in Kumaon for centuries, as a detailed study of the moth fauna of this area had not been undertaken earlier. The confirmation of the possibility of *cristata*'s recent range extension, obviously, would lie in its appearance in localities surveyed in the second half of the 19th and first half of the 20th centuries.

On July 17, 1993, I found the right forewing of a specimen of *Marumba cristata* (4.1 cm long) on a hotel balcony on the western outskirts of Shimla town. The moth had evidently been attracted by the outdoor lights, which had been left on all night, and had fallen prey to a bird or a gecko there. The wing bears over ten beak or tooth marks along the costa and at the base, none of which punctured the wing. The wing is whole and in good condition except the discal area where some scales have been rubbed off. Most of the markings beyond the discal line are clearly distinguishable, enabling it to be definitely placed as a wing of *M. cristata*.

I was unable to visit Shimla subsequently at a suitable season. This single record is of importance, even if the specimen was a mere straggler, since previous workers had not recorded it there. Therefore, it appears to have moved into the area recently, i.e. since Bell & Scott (1937) completed their studies in Mussoorie.

Moving from east to west, Mussoorie is roughly 100 km west of Bhimtal in Kumaon. Bhimtal is the westernmost site recorded for *cristata* (Smetacek 1994).

This species has not been recorded from Mussoorie, but its appearance in Shimla (roughly 100 km northwest of Mussoorie and 200 km west of Bhimtal) suggests the existence of *cristata* in the area between Bhimtal and Shimla, probably around Mussoorie.

In Kumaon, *cristata* has been recorded in all the three ranges of the Himalaya. In the outermost range, where populations have been monitored for over two decades, it is a common, well established species, which can become very common if there are no forest fires and rainfall is heavy for several consecutive years.

The present record confirms that at least some Hawkmoths have extended their range westwards along the Himalaya during the second half of the twentieth century.

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