

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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25. *PLEURONA FALCATA* WALKER, AN ADDITION TO THE NOCTUID FAUNA OF THE INDIAN MAINLAND

In the Indian sub-region, the species *Pleurona falcata* Walker (Lepidoptera: Noctuidae) has been reported from Burma (Myanmar) and the Andaman Islands (Hampson 1894), but not from the Indian mainland. A single specimen was recorded by this author in the Kumaon Himalaya. This record extends the known distribution of this moth considerably westwards and northwards. It was previously known from tropical areas, but the present record is from c. 29° 20' 43" N.

The following is a description of the specimen:

Pleurona Walker

1866. Cat. Lep. Het. Brit. Mus. Lond. 35: 564.

Pleurona falcata Walker

1866. Cat. Lep. Het. Brit. Mus. Lond. 35: 564.

Material Examined: 1 ex. (female): 20.xi.1998, Jones Estate, Bhimtal, Kumaon 1,500 m at MV light. Leg. & coll. Peter Smetacek.

Forewing Length: 17 mm.

Expanse: 38 mm (Hampson 1894 & mihi).

Distribution: Burma, Andamans (Hampson 1894).

Remarks: This taxon should not be confused with *Chilkasa falcata* Swinhoe, which Hampson (1894) included under *Pleurona*, proposing the new name *Pleurona perhamata*, since *Pleurona falcata* was preoccupied by the species being discussed here. The genus *Chilkasa* Swinhoe was subsequently resurrected in recent works such as Barlow (1982); hence *Chilkasa*

falcata is a valid name but does not refer to the species being discussed here.

The specimen is in perfect condition. It matches the description and Fig. 310 in Hampson (1894) except in the following points:

1. The ground colour on the *recto* surface is dark purplish-brown, not bright red-brown.
2. On the hindwing *recto*, the series of submarginal specks mentioned by Hampson are part of a crenulate line.
3. On the hindwing *verso*, the medial and postmedial lines are clear and sharply defined, not indistinct.
4. On the hindwing *verso*, the submarginal line is crenulate from the inner margin for two thirds of its length and the remaining third is straight to the costa.

The breeding status of this moth in the Bhimtal valley is uncertain, since this is the only specimen recorded in over two decades of monitoring moth populations at this site. However, it is certainly from a breeding population within Indian borders, since it is inconceivable that the present specimen could have passed its early stages in Myanmar and then traveled to Bhimtal. It is more likely that breeding populations of this moth will be found at low elevation along the Himalaya, at least as far west as Kumaon, particularly in the Terai and Bhabar zones, since this moth is primarily a tropical species.

It seems that the present specimen was a straggler from low elevation attempting to disperse the species. Its appearance in late November further indicates that

it is a low elevation species, since there are very few locally established moths on the wing at that time at 1,500 m elevation.

In recent years, a number of typically Indo-Malayan Lepidoptera have been added to the known fauna of the Kumaon Himalaya (Smetacek 1994, 1995, 1998). While the paucity of comparative material from the 19th and first half of the 20th centuries from this area makes it uncertain whether the new records are recent arrivals or have been established here since the records began, in some cases it has been possible to suggest that some hawkmoths and at least one butterfly

(Smetacek 1994, 1995) are recent arrivals. In the case of *Pleuromia falcata*, I would venture to suggest that it is a relatively recent arrival, probably sometime during the 20th century, since extensive work by a number of workers in the eastern Himalaya and the hills of northeast India during the 19th and 20th centuries failed to discover this moth.

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26. *CORYMICA* WALKER, LEPIDOPTERA: GEOMETRIDAE, IN THE KUMAON HIMALAYA, WITH THE DESCRIPTION OF A NEW FORM OF *C. DEDUCATA* CAUSTOLOMARIA MOORE

Corymica Walker is a small genus of Geometrid moths that occurs from the Indian subcontinent northward to Korea and Japan, and eastward to Sulawesi and Papua New Guinea. These moths are predominantly yellow, with relatively long palps and a distinctively shaped forewing, whose chief features are an acute apex and a dorsal margin with the distal half highly excised. Only males bear a large hyaline fovea near the base of the forewing.

Hampson (1895) and Prout (1915) assigned three species to the genus, while Wehrli (1940) took *vesicularia* Walker out of the synonymy in which these two authors placed it, and treated it as a valid species, raising the number of species to four. Wehrli (1940) also suggested that the taxa treated as subspecies of *specularia* Moore would probably prove to be a good species, which would increase the total number of species in the genus.

Hitherto, no moths of this genus had been reported from the Kumaon Himalaya, although *vitrigera* Butler was described from Dharamsala in Himachal Pradesh. This taxon was treated as a subspecies of *C. specularia* by Prout (1915) and as a synonym of the same by Hampson (1895), whose typical form is known from Bengal and the eastern Himalaya. So *vitrigera* or *specularia* was to be expected in the Kumaon

Himalaya, which lies between the two type localities.

However, in view of the observation by Wehrli (1940) on the subspecies of *specularia*, it is possible that *vitrigera* is, in fact, a good species, in which case both *specularia* and *vitrigera* may occur in Kumaon, the latter probably in the main Himalayan range, since the type locality, Dharamsala, is in the main range.

Location

The present study was carried out in the Kumaon Himalaya in the state of Uttaranchal. All records are from the Jones Estate in the Bhimtal Valley, 24 km from the district headquarters of Nainital. The elevation is c. 1,500 m above msl. The site lies in the outermost range of the Himalaya and constitutes the micro-watershed between the Bhimtal and Sattal lake systems.

The area is well forested, with the Himalayan oak (*Quercus leucotrichophora* A. Camus) and chir pine (*Pinus roxburghii* Sarg.) as nodal species, interspersed with elements of low elevation deciduous species, such as *Sapium insigne* Trim. and *Erythrina* L. spp. Other species include *Mallotus philippinensis* Muell. Arg., *Bauhinia* L. spp., *Phyllanthus* L. sp., *Pistacia* L. and *Ricinus* L. In addition, a large number of exotic trees and shrubs, such as tea *Nerium* L., and mango *Mangifera* L. make the area botanically diverse.



Smetacek, Peter. 2004. "Pleurona Falcata Walker, An Addition To the Noctuid Fauna of the Indian Mainland." *The journal of the Bombay Natural History Society* 101, 172–173.

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