

**Doon Watch Nature Series for Dehradun Live Hindustan Times
by Sanjay Sondhi**

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The Migration of the “Yellow Bounder”

For the past few days, swarms of white and yellow butterflies have been seen streaming past numerous parts of Dehradun city. For hours together, in a seemingly endless stream, the butterflies have zig-zagged their way in large swathes over the landscape. Curiously, all the butterflies have been flying in only one direction-towards the north-west. On and off, the butterflies sit under a leaf, as though to catch their breath, and after a short siesta, the butterflies are off again. The large butterfly swarms have not been without tragedy, and I saw quite few butterflies knocked down by vehicles, lying injured or dead on the roads.



These butterflies, the Common Emigrant *Catopsilia pomona*, belong to a family of butterflies called Pieridae. The Common Emigrant, which gets its name from its migrant behaviour, is a very variable butterfly, and it can be either white or yellow, or some shade in between. The Common Emigrant has a strong, bounding flight, and hence its schoolboy name, the Yellow Bouncer.

Butterfly migration is one of the many mysteries of the natural world. How do these dainty insects travel for thousands of kilometers? The Monarch Butterfly in North America migrates from Canada and northern USA in the winter to the warmer climes of California and Mexico, a distance of 4000 kilometers. Come summer, and a completely new brood finds its way back-leaving everyone guessing how they can find their way back!

In India, butterfly migration still remains poorly understood. Migration of butterflies is normally linked to weather conditions and the availability of food. Largely, three kinds of butterfly migrations occur. The first kind, is long distance migration. An example of this in India is the Milkweed butterflies which migrate in the summer months from the southern Western Ghats to the plains in order to avoid the heavy monsoon rains. Some of these butterflies even reach the Eastern Ghats, traveling up to 500 kilometers. The second kind, is local migration, which often happen in the Himalayas, wherein a cold spell results in butterflies seeking warmer climes, at lower altitudes, for better food availability.

The last kind of migration, is called dispersal or very local migration. The Emigrants that we are seeing in Dehradun are “dispersing”. The food plant of the Emigrant caterpillar are numerous *Cassia* species such as *Amaltas*. Emigrant butterflies lay eggs in small batches wherever the food plant is abundant. Sensing the favorable conditions during the monsoons, many Emigrants lay eggs at the same time. The caterpillars of the the Emigrant are quite hardy, and large numbers survive and thrive. Their caterpillar metamorphose into butterflies in very large numbers. A significant increase in the population of the same species of butterfly results in a decrease in food availability for the butterfly and its caterpillars. Hence, the swarms of Emigrants are now on a spectacular journey, emigrating in the search for new locations with better food availability for itself, and its new brood of caterpillars.

The explanation for the migration of the Emigrant remains a premise, with lots of unanswered questions. For example, why do all the butterflies fly in the same direction? Why don't they disperse in many different directions—surely their chances of finding food plants will increase if they do this? Is it “herd mentality” that all of them head in the same direction? The simple answer is—we don't know!

Nature's mysteries abound. We have lots to learn about nature, provided, of course, we give nature a chance!

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Photograph caption: The Common Emigrant, taking a break on its migration.