

Mountains of Tamil Nadu in South India. Hundreds of individuals were hawking for insects everywhere.

On 18-X a dense migration started towards the southeast, and it was possible to establish that they covered a front of more than five kilometres. More than one per minute per metre passed for more than four hours of observations, which would imply that on that single day the total number of migrants was more than one million. I left Kotagiri for good that afternoon, and it seems perfectly likely that the migration persisted and that its front may have been wider than the one I observed.

At this time a mixed butterfly migration was also in evidence, but here were three streams, to the SW, S, and SE respectively. None of these streams was as dense as the dragonflies, but they had been in evidence for more than a month.

The timing of this migration is concomitant with the change from the SW to the NE monsoon, and this timing as far as butterflies are concerned does not seem to be fortuitous.

According to Stephen Brooks (BMNH) the species is well known for mass migrations, but it is interesting to note that the migration was correlated to one in butterflies. During my childhood in Kotagiri there were annual, autumn butterfly migrations. That of 1957 was accompanied for a few days by *Pantala flavescens* by the million, a much more spectacular event than the present one. At the time the direction was to the SW which was also the direction of a huge butterfly migration involving at least twenty species.

This limited set of observations has little value on its own. But it is a sad fact that although insect migrations every year involve billions of individuals we know practically nothing about their scale, volume, or underlying causes. These will never be fully worked out unless thousands of individual migration events are recorded in print. The fact that butterflies and dragonflies in the Nilgiris migrate in the same direction at the same time of the year is hardly by chance, and it seems likely that they are both triggered by the same set of meteorological conditions.

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#### A MIGRATION OF *PANTALA FLAVESCENS* (FABR.) IN SOUTH INDIA (ANISOPTERA: LIBELLULIDAE)

From October 5, 1986 onwards the common Globe Skimmer, an almost universally distributed migratory dragonfly, became increasingly common at Kotagiri, 1900 m in the Nilgiri