## MIGRATION NOTES FROM MEXICO

On 19 August 1948, a migration of *Libytheana bachmanii larvata* (Strecker) was noted along the Pan American Highway between La Gloria and Sabinas Hidalgo, Nuevo Leon, Mexico. All specimens were flying eastward at one to three feet above ground level. The heaviest flight was near Vallecillo, but the migration was plainly evident for fifteen to twenty miles on either side of this point. The flight was apparently limited on the south by the spur of the Sierra Madre Oriental which is just south of Sabinas Hidalgo and on the north by the 45 miles of arid, barren country between La Gloria and Nuevo Laredo. No evidence of migration was noted either in Laredo, Texas, or south of Mamulique Pass, Nuevo Leon, although the species was rather common in both localities.

Along the same route on 9 September 1941, *L. b. larvata* was exceedingly common, some flowering shrubs near Vallecillo being nearly blanketed with specimens, but there was little indication of any migratory tendency.

On 27 September 1951, a migration of *Phoebis agarithe* (Bdv.) was noted on the Pan American Highway between El Mante and Ciudad Victoria, Tamaulipas, Mexico. All specimens were flying southward, most commonly at three to six feet above ground level. There was a very light breeze from somewhat west of south. The flight was so dense near El Mante that both sides of the highway were dotted every few inches with specimens killed by automobiles, although traffic was relatively light. The southern limit of the flight was not determined because the highway was entered from the west at Antiguo Morelos, eighteen miles south of El Mante, and at this point it was quite dense. The migration did not extend appreciably west of the highway, probably because of the range of hills in this direction, nor was there any evidence of migration in the valley just to the west of these hills, although the species was common there. The flight had almost ceased about thirty miles north of El Mante.

It may be noted that this has been an unusually wet year for this region with an attendant luxuriance in vegetation. There was no indication of migration in the same area on 10 September 1951, though the species was common. Rains, which caused all rivers to flood, had occurred in the intervening period.

Both sexes of *P. agarithe* were involved, though the males were the more common. Various other species, small pierids, libytheids, and nymphalids, were noted infrequently in what appeared to be imitative migration, flying steadily and continuing on the main line of flight until out of sight. Their behavior was in contrast to most examples of their respective species which were making the usual short flights in random directions. The *P. agarithe* were not deflected by relatively small obstacles, flying over or through trees and thickets, but they did tend to avoid ridges and to concentrate in the lower passages where these lay along the direction of flight.

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## SPECIMENS WHICH DIE WITH WINGS REVERSED

I noticed in the *Lep. News* (vol. 4: p. 73; 1950) an article by Richard Guppy, Wellington, B. C., in which he says in part: "Specimens that turn inside out can be rescued by placing them in a relaxing jar, with very little moisture, for 24 to 48 hours. They will then turn back easily." It occurred to me that the method I use might be of value to those who do not use it. I carry a pair of forceps and a setting needle. When a specimen turns backward I wait till shortly after all movement has ceased and then shake the specimen out of the jar and seize its body from below with the forceps and then insert the needle between the wings and press the wings open. Usually the wings will snap back into the correct position. It has to be done at just the right time to be successful. If tried too soon, the butterfly may partly recover on exposure to the air and flip itself inside out again. If left too long, it begins to get rigid. I usually sit down about once every twenty minutes and turn any specimens that need it.

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