RAPID DEATH OF NETTED BUTTERFLIES

Leptotes perkinsæ, indigenous to Jamaica, B. W. I., is easily distinguished from *Leptotes cassius theonus* by the fact that it has but one spot on each secondary. The two spots that *L. cassius theonus* has are considerably smaller. These species differ on the underside also. *L. cassius theonus* is quite common and the sexes are about equally divided. *L. perkinsæ*, on the other hand, is local and rare. Females are missing from most collections. The insect flies mostly at altitudes from 500 to 1800 feet and is extremely active.

There is a spot on Stony Hill back of Kingston where it has been taken, so I went there at 9:15 A.M. on Feb. 5, 1955. At 10:40 the first one put in an appearance. At 11:12 I caught a well-conditioned male and decided on an experiment. I left it alive in my white nylon net in the hope that it might attract a female. It fluttered and crawled around for a while and then, closing its wings with the upper side showing, it lay still. To my complete surprise, it was dead. The time was 11:15. Quietus had taken but a few minutes.

For the next few weeks I conducted more experiments with the following results:

On Feb. 7, 1955, at Mammee Bay I left a female *L. cassius theonus* in the nylon net in the sun at 11.13. After flying and crawling for 1 minute and 15 seconds it folded its wings outside out and became inert. At 11:15 it was dead.

At 11:23 I went through the same procedure with an *Anæa portia.* At the end of four minutes it was exhausted and a minute later it was motionless except for occasional movements of the abdomen and a few leg jerks. Its wings were folded with the underside showing. It was removed from the net and put out on a twig of a tree, but was too weak to maintain a grip. There was no change at 11:55 though it had been in a breezy place in the shade.

At 11:40 a male *Leptotes cassius theonus* was caught. 17 minutes later it was released because there appeared to be no change. However, it was quite weak, and flew for but short distances and then only when physically disturbed. During the experiment, the sun had at times been beclouded.

On Feb. 8, 1955, at 11: 25 A.M. a male *Eurema lisa euterpe* was caught at Hope Gardens and died in 1½ minutes under the same circumstances.

On Feb. 9, 1955 at noon, a male *E. messalina* was taken at Polly Ground (500 ft.) and died in 2¼ minutes. We took a male *Calisto zangis* — this time in a green nylon net. It died in 3 minutes and 40 seconds, wings folded outside out. A *Cystineura dorcas* succumbed in 15 minutes in the green net.

In the P.M. a *Eurema elathea* male was contained in the white net for many minutes. It showed weakness but did not die.

At 3:15 P.M. a male *L. cassius theonus* was captured. Four minutes later it was released with no visible effect.

On Feb. 23rd at 11:50 A.M. at Rockmore, which is close to sea level, we captured a *Heliconius charitonius simulator.* It was feeble in 8 minutes, helpless in 10, and dead a minute later with wings folded outside out. Sex was undetermined. It was placed on top of a bush to see if it might recover, and within a minute it attracted another insect of the same species which flew at it and knocked it to the ground. In dropping, the wings reversed themselves so that the underside was exposed. It was replaced on the bush and nothing happened. The wings were then folded the other way and four different insects (same species) fluttered about it.

At 12:23 a male *Eurema palmira palmira* was taken. It seemed weak at 12:27 but did not die. At 12:39 it was released to fly away rather strongly.

Have there been any other observations similar to the above? Do the above reactions come from the effects the sun has on an insect that is confined? Does nylon create static electricity that electrocutes the insect?

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