

MASSIVE MOVEMENT OF *PANOQUINA SYLVICOLA* IN SOUTHERN ECUADOR (LEPIDOPTERA: HESPERIIDAE)

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ABSTRACT.— A large mass of *Panoquina sylvicola* (Herrich-Schäffer) (Lepidoptera: HesperIIDae), accompanied by limited numbers of *Siproeta epaphus* Latreille (Nymphalidae) and an unidentified species of Aeshnidae dragonfly (Odonata), were observed moving west to east near Loja, Ecuador, on 18 April 1992. Approximately 100-150 butterflies per minute were counted over a road at 3100m, flying about 18 km per hour against a wind speed of 12 km per hour.

KEY WORDS: Aeshnidae, behavior, biology, migration, Neotropical, Nymphalidae, Odonata, *Siproeta*, South America, *Urbanus*.

The purpose of this note is to describe a migratory movement of *Panoquina sylvicola* (Herrich-Schäffer) (Hesperidae), associated with *Siproeta epaphus* Latreille (Nymphalidae) and undetermined species of Aeshnidae (Odonata), observed in southern Ecuador.

On 18 April 1992 at 1300h, a large mass of butterflies was observed crossing the road from Loja to Saraguro, flying from west to east. The precise locality was at 3°53'S latitude and 79°14'W longitude, at an altitude of 3100m above sea level. The day was partially cloudy with some sunshine. The temperature was about 20°C. The mass of flying butterflies was approximately 1200m wide. The great majority of butterflies were the skipper species, *Panoquina sylvicola*. Limited numbers of *Siproeta epaphus* were flying in the same direction. A few individuals of an unidentified Aeshnidae dragonfly were flying around the main group of migrating butterflies. The *P. sylvicola* skippers were flying from 50cm to 2m high from the ground, while the *Siproeta epaphus* nymphalids were flying at 2m above the ground, and the individuals of Aeshnidae were flying close to the ground at about 50cm high.

We counted approximately 100-150 butterflies per minute crossing the 1200m area, flying against the wind. The butterflies were flying at about 18 km per hour, while the wind speed was 12 km per hour. There were many dead butterflies on the road, possibly due to being hit by passing cars. Residents in the area emphasized that a few days before 18 April a larger group of migrating butterflies had crossed the road.

This observation is unusual in that skippers are rarely observed to migrate. *Urbanus dorantes* (Stoll) has been observed to annually migrate north in the spring and south in the fall in Florida (T. J. Walker, pers. comm.; T. C. Emmel, pers. comm.). Besides the USA, a few similar mass movements have been reported in the literature for species of skippers in Australia, India, Sri Lanka, Guyana, and southeast Brazil (Williams, 1930).

LITERATURE CITED

- Williams, C. B.
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