Diurnal Butterflies Population as Indicator Environmental Quality of the Natural Park "San Francisco," Torti, Panama

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The objective of this work was to evaluate the environmental quality of a forested area of Parque Natural San Francisco, throughout the measurement of the ecological attributes of diurnal butterflies' community (Lepidoptera: Rhopalocera). For this, we collected butterflies in adult state in a total area of 2,078 meters, during the months of July and August of 2018. The collection was done with an entomological net and with the VanSomeren-Rydon trap with bait of beer with banana, beer with mango-apple and yeast with apple. The samples were transported to the laboratory and were identified with taxonomic keys. The analysis of the data was conducted by using the Margalef (DMg) wealth index, Shanon – Wiener (H') and the quantitive index of Chao-Sorensen. In total, we captured a total of 71 specimens of diurnal butterflies, distributed in 7 families and 30 species. The greatest representation was the Nymphalidae family, with a species richnes of 14 species, followed by the Pieridae, Papilonidae, Hesperiidae, Lycanidae and Riodinidae families, each one with three (3) species, respectively. At last, the Uraniidae family was represented by only one species. The greatest abundance of butterflies was obtained in the month of July with 41 individuals, followed by August with 30. The more abundant species were Urania boiduvalii, Morpho Menelaus amathonte, Uraneis ucubis and the Parides genus. Some of the species were located inside of the forest, constituting an indicator of the high grade of fragmentation, secondary succession, considering them as species typical of secondary forests and forest edges. Keywords: Biological quality, Lepidopteran Order, diurnal butterflies, index of biodiversity, bioindicators.

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