

New butterfly species identified in Yucatan peninsula

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About 160,000 species of butterflies and moths are already known, but scientists believe that a similar number still remain undiscovered. Identification and characterization of these species can be complicated by the fact that each species has an immature caterpillar and a mature butterfly form, as well as the reliance on the physical appearance for classification.

Now, though, researchers report that a type of [DNA analysis](#) called "barcoding" may provide a powerful tool in this effort, according to a study published in the Nov. 16 issue of the online journal [PLoS ONE](#).

The researchers, led by Carmen Pozo of El Colegio de la Frontera Sur in Mexico, focused on the Yucatan peninsula population of a particular family of butterflies called *Nymphalidae*.

Approximately 570 species of *Nymphalidae* have been reported in Mexico, and 121 of these occur in the Yucatan peninsula. Using DNA barcoding, which uses the sequence of a standard short gene segment to provide information about biodiversity, they found evidence for several previously undiscovered, so-called "cryptic" species that now await characterization.

They also found four cases where specimen had been misidentified based on the appearance; these erroneous classifications were corrected based on the DNA, highlighting the potential utility of this method.

More information: Prado BR, Pozo C, Valdez-Moreno M, Hebert PDN (2011) Beyond the Colours: Discovering Hidden Diversity in the Nymphalidae of the Yucatan Peninsula in Mexico through DNA Barcoding. PLoS ONE 6(11): e27776

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