

AN OBSERVATION ON THE USE OF COLOR FOR SPECIES-RECOGNITION IN *HELICONIUS BESCKEI* (NYMPHALIDAE)

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Crane (1955) has shown red to be an important courtship releaser in *Heliconius erato hydara* Hewitson, and Swihart (1963, 1964) has confirmed the significance of red in that species by neurophysiological techniques.

During the course of genetical studies on *Heliconius*, living specimens of the mimetic pair, *Heliconius erato phyllis* (Fabricius) and *H. besckei* Ménériés, from Rio de Janeiro, Brazil, were caged with specimens of *H. melpomene melpomene* (Linnaeus) from Trinidad. Both *H. e. phyllis* and *H. besckei* have red forewing bands and a yellow hindwing bar, but *H. m. melpomene* has only red forewing bands. All colors are on a black background.

It was observed that male *erato phyllis* and male *melpomene* would each fly towards members of either of the other two species in the cage, but presumably because secondary courtship releasers were lacking they would then disengage and fly off (all the females had already been mated). *H. besckei*, however, though appearing in good health, would only pursue the *phyllis*, not the *melpomene*. The color difference between these two is the lack of yellow in *melpomene*. The courtship releaser is known to be red in *erato* and is likely also to be red in *melpomene*. Possibly it is yellow in *besckei*.

Whether the courtship releaser in *besckei* is red or yellow is an important behavioral character which should be considered in deducing the course of the evolution of mimicry in *Heliconius*.

LITERATURE CITED

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