

ABSTRACT

Hypolimnys misippus is a polymorphic and mimetic butterfly with a pantropical distribution. The polymorphism is autosomal and female-limited, the several female forms being generally regarded as Batesian mimics of the distasteful, toxic and polymorphic danaine butterfly *Danaus chrysippus*. The female phenotypes of *H. misippus* are described and classified. New data, from the rearing of 140 broods of *H. misippus* in Ghana and Sierra Leone, are analysed together with older material (21 broods) from other parts of Africa. Form *misippus* (genotype M-) is found to be genetically dominant to form *maria* (genotype mm). However, a large proportion of mm butterflies has an intermediate phenotype, especially in association with white on the hindwing. Evidence is adduced to show that the genes giving hindwing white are variably epistatic over the 'maria' pattern in the mm genotype, producing a phenotype transitional to or even identical to *misippus*. The various intermediate phenotypes are poor mimics of *D. chrysippus*: their abundance, geographical range and, hence, significance have been much underestimated.