



# Genetic diversity analysis with RAPD linked to sex identification in the sugar cane borer *Diatraea saccharalis*

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**ABSTRACT.** *Diatraea saccharalis* is an insect that causes considerable losses in the sugar cane crop. Our aim was to contribute to the knowledge of the biology of *D. saccharalis*, with the report of DNA fragments involved in the differentiation between the male and female of this species using the RAPD sex molecular marker GyakuU-13, which is specific for the W chromosome of *Bombyx mori*. Another point evaluated in this study was the genetic diversity of a *D. saccharalis* population maintained by inbreeding in a laboratory culture. The profile of sex-specific fragments was analyzed, and the genetic variability of this population was estimated. An analysis of the molecular markers showed only one fragment, of approximately 700 bp, that could be considered as a female sex marker in *D. saccharalis*.

**Key words:** *Diatraea saccharalis*; RAPD; Sex-specific marker; Genetic diversity