

## Abstract

*Mussidia nigrivenella* (Lepidoptera: Pyralidae), an important pest of maize, cotton and *Phaseolus* bean in western Africa, has never been described as a crop pest from Eastern and southern Africa (ESA), although it was reported in the wild. Generally, little is known about the host plant range and the diversity of *Mussidia* spp. in ESA. Thus, surveys were carried out in Kenya between 2005 and 2007 to assess the species diversity and host plants of *Mussidia*. Eight plant species were found to host two *Mussidia* spp. and six morphospecies, which occur sympatrically in the coastal region. Only one *Mussidia* sp. was found attacking one host plant in the mid-altitudes. The spatial distribution of *M. nr. nigrivenella*, *M. 'madagascariensis'* and *M. fiorii* was studied. *M. nr. nigrivenella* and *M. 'madagascariensis'* larvae were aggregated on *Canavalia cathartica* and *Strychnos madagascariensis*, respectively, while the distribution of *M. fiorii* adults on *Kigelia africana* was regular. Sampling plans were developed for three *Mussidia* spp. on their respective host plants, allowing estimation of pest densities. The occurrence of *M. nigrivenella* in ESA could not be determined with absolute certainty.