

## Abstract

Agromyzidae populations occurring in legumes in Kenya were tested for speciation at host-type level and at the species level using discriminant analysis. Measurements were taken of various morphological characters of five populations of *Chromatomyia horticola* from five host plants and of seven male and female agromyzid species. The ratio of the proximal to the distal part of the wing vein, ( $M_{3+4}$ ) provided the best discrimination for five host populations of *C. horticola*; the species was separated into two distinct groups by this character. Females of *Ophiomyia spencerella* and *O. phaseoli* were distinct. However, overlap existed in male *O. spencerella*, *O. phaseoli* and *C. horticola*. In addition, there was overlap in female *O. phaseoli*, *Tropicomyia vigneae* and *Liriomyza trifolii*. The best discrimination in the male populations was obtained using the ratio of the proximal to the distal part of wing vein ( $M_{3+4}$ ). In the female populations, the best discriminating character was hind tibia length.