

Entomofauna of Hemiptera Auchenorrhyncha in chayote (Sechium edule) fields with chayote witches' broom (ChWB) disease

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Chayote (Sechium edule) is a commercially important vegetable crop which is affected by chayote witches' broom (ChWB) disease, associated with 16SrIII-J phytoplasma reported also in Momordica charantia (Cucurbitaceae) growing as weeds in fields of chayote in Brazil (Montano et al., Plant Disease, 84, 429-436. 2000). M. charantia is likely the main reservoir of chayote witches' broom phytoplasma, and it is important to investigate the presence of putative insect vectors. At the location of Mendanha (State of Rio de Janeiro), a survey was conducted to examine Auchenorrhyncha fauna, in chayote fields with ChWB. Individuals observed were collect from Malaise and yellow adhesive traps. Sweeping net method was also utilized to collect leafhoppers. Specimens examined could be identified to the family/subfamily levels, distributed among Achilidae, Agallinae, Cicadellidae, Cicadellinae, Cixiidae, Delphacidae, Delthocephalinae, Gyponinae, Membracidae, Nogodinidae and Thyphlocibinae. Species identified were Acrogonia sp., Balclutha hebe, Bucephalogonia xanthopis, Copididonus hyalipennis, Curtara concava, Curtara curtara, Fonseicaiulus sp., Hortensia similis, Ileopeltans aberrans, Macugonalia cavifrons, Oncometopia facialis, Oragua triplehorni, Plesiommata comiculata, Scaphytopius (convelinos) marginelineatos, Scopogonalia altinani, Tettisama quinquemaculata, Xerophloea sp. and Xerophloea veridis. In fields next to chayote plantings, 16SrIII-J phytoplasma was found associated with diseased pumpkin (Cucurbita moschata) plants, and the disease was named pumpkin yellows (Montano et. al., J. Pl. Pathol., 88, 226. 2006). This finding suggests the involvement of insect vectors in the dissemination of 16SrIII-J phytoplasma among species of the family Cucurbitaceae. It is paramount to search for potential insect vectors and to gain understanding of the spread of ChWBIII phytoplasma to chayote and other plant species.