

**BIO 50 Intra-plant spatial distribution of *Thaumastocoris peregrinus* (Hemiptera: Thaumastocoridae) in *Eucalyptus grandis* trees**

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The eucalyptus bronze bug *Thaumastocoris peregrinus* (Hemiptera: Thaumastocoridae) was detected in Brazil in 2008 and infested more than 130,000 ha of eucalyptus plantations in 2010. A cooperative project to develop an IPM to this forest pest is ongoing and basic studies about sampling methods development are necessary to support monitoring programs. A study to determine the spatial distribution of *T. peregrinus* in eucalyptus tree canopy was carried out evaluating 25 *Eucalyptus grandis* trees random distributed in a one year-old plantation block. The tree canopy was divided in stratus, considering vertical (North, South, East and West) and horizontal (lower, medium and upper thirds) positions. In each tree were collected 12 branches, being four branches per stratus and counting the number of insects (eggs, nymphs and adults) in ten leaves. The samples were conditioned in plastics bags and counting was proceeded in laboratory. The observed frequencies to adults were: 3.5 % in lower third, 58.3 % in medium third and 38.2 % in upper third, and to nymphs were: 30.7 %, 46.7 %, 22.7 % in lower, medium and upper thirds, respectively. In eggs sampling it was verified only 3.9 % of eggs in lower third, while in medium and upper thirds were found 49.2 % and 46.9 % of eggs, respectively. In vertical distribution, it was considered only data obtained in medium third, the most preferred by bronze bug. The data demonstrated higher number of *T. peregrinus* adults in East and North positions, and nymphs in West side. To eggs, it was verified oviposition preference to South and East sides. Then, the most representative sampling position intra-plant to sample adults, nymphs and eggs of *T. peregrinus* is the East position of medium third of canopy. Further studies are necessary to evaluate de intra-plant spatial distribution in other eucalyptus species and ages.