

Geostatistical analysis of *Cydia funebrana* (Treitschke) spatial dynamic

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Abstract

Spatial relationships between pheromone trap catches of male plum moth, *Cydia funebrana* (Treitschke), were studied in the Molise region (Italy) at local level, inside and around a plum orchard, as well as at regional level comprising selected sites including orchards.

At local level, geostatistical methods as kriging interpolation and correlograms by Moran's Index were applied to show the spatial distribution and to assess the effect of orchard surroundings on the spatial dynamic of the plum moth.

At regional level, a classification of orchards by means of a hierarchical cluster analysis between sites were carried out.

The results are discussed with respect to the observed spatio-temporal distribution and to the monitoring and pest control operations, at local and regional levels.

Key words: *Cydia funebrana*, kriging, local level, regional level.