

Abstract:

The population dynamics of *Pineus pini* (Gmel.) was examined in two locations in the Kenya Highlands where the mean annual precipitation ranges from 620 to 1400 mm. Variations in population densities were related to rainfall. Generally, there was a marked decrease in population during the three months of heavy rainfall in March to May and a significant increase during dry weather from August to October. This was followed by a slight decrease in the rate of population build-up, until the long rains in April again resulted in another population collapse. Nine species of predatory insects were identified, and population fluctuations of the most common of these, *Exochomus* spp., were studied. Predators seemed to remove about 12% of the aphid population. Other mortality factors included heat and crawler dispersion. The greatest mortality occurred early in the life-cycle and was mainly due to eggs and crawlers being washed off the host-tree by rain.