STUDY ON DISPERSAL OF *ANOPLOPHORA GLABRIPENNIS* (MOTSCH.) (COLEOPTERA: CERAMBYCIDAE) POPULATION

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The dispersal regulations of *Anoplophora glabripennis* (Motsch.) were studied by using the mark-recapture method in Yongjing County, Gansu Province in 1999 and 2000 successively. On the basis of collecting the dispersal data by the time-series process of *A.glabripennis* adult population, dispersal pattern of *A. glabripennis* adults in poplar shelter forest network was studied and the factors that have effect on the dispersal were analyzed. The results indicated that the spatial pattern of *A. glabripennis* adults in the shelter forest was negative binomial distribution, which was aggregative distribution. The dispersal density of *A. glabripennis* adults decreased with the increase of distance and time, the relationship between the dispersal distance and the amount of adults could be described by the mathematic model $y = 4203.5683 x^{-1.1756}$. The population dispersal had obvious direction. There was not a close relationship between the dispersal and the amount of hosts in a certain extent. So it was caused mainly by the environment. Meteorological factor analysis indicated that the dispersal pattern was affected mainly by the wind direction. The amount of recapture at all direction had negative relationship with the same wind direction and positive relationship with the opposite wind direction, while it had not close relationship with wind speed, temperature and relative humidity. There was no difference of dispersal direction and distance between male and female adult of *A. glabripennis*, only the amount of male adult was more than the female. It could disperse to more than 2000 m and even more. The observed farthest dispersal distance of the adult was 2644 m in 2000.