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SURVIVAL OF CRAWLERS OF CALIFORNIA RED SCALE, *AONIDIELLA AURANTII* (MASK.) (HOMOPTERA:DISPIDIDAE)—(*Prepublished Abstract*) The periods of survival of first-instar larvae (crawlers) of California red scale were estimated in the laboratory under conditions that attempted to simulate those that the crawlers would be exposed to during dispersal by wind in the field. Since attempts to keep crawlers suspended in a stream of moving air for long periods were unsuccessful, they were placed in small cages, and air at constant temperature and humidity was passed through the cages at known rates. Following exposure, the crawlers were transferred to lemon leaf discs, and only those able to begin feeding and secrete a scale were recorded as survivors.

At 15°C crawlers survived a mean period of 17·1 hr at 70% R.H. and 14.2 hr at 35% R.H.; at 25°C, 10·1 hr at 70% R.H. and 6·8 hr at 25% R.H.; at 35°C, 7·2 hr at 70% R.H. and 5·7 hr at 25% R.H. The period survived was significantly higher at the higher humidity in each case. At 70% R.H. the period of survival decreased significantly with increased temperature. At 25% R.H. the period was significantly higher at 15°C than at 25°C, but not between 25 and 35°C. The period of survival decreased as the rate of flow of air past the crawlers increased to the terminal velocity.

The long periods of survival of crawlers, even under extreme conditions to which they would rarely be exposed in nature because of their rhythm of emergence, leaves little doubt that they could withstand transport by wind over long distances even during hot, dry summer weather. (Aust. J. Zool., 1973, 21:567-73; J. R. Willard, Univ. of Saskatchewan, Saskatoon, Canada S7N, OWO).