



Fig. 4. Detailed distribution of *Iridomyrmex humilis* along corridors of riparian vegetation in Yolo and Solano counties. Closed circles: *I. humilis* present; open circles: *I. humilis* absent.

Effects of *I. humilis* on Native Ant Fauna

This analysis is necessarily confined to the ant fauna of valley riparian woodland, because no other natural habitats were found to be invaded by *I. humilis*. A total of 27 native ant species were recorded in valley riparian woodland during this survey. By all three measures of species richness—the number of ant species in litter collections (S_L), in bait collections (S_B), and recorded in total for the site (S_T)—sites occupied by *I. humilis* have significantly more depauperate ant faunas than those unoccupied by this species (table 5). In fact the ranges in S_T do not even overlap for the two kinds of sites (1 to 5 species in *I. humilis* sites; 6 to 12 species in unoccupied sites).

Because *I. humilis* appears to occupy riparian sites with certain features (that is, disturbed sites with permanently flowing water), it might be possible to attribute the differences in species richness to those variables rather than to the presence or absence of *I. humilis*. However, separate analyses of variance show no significant effects of stream flow or encroachment by nonnative trees on S_T (including no significant interaction effects with site type). Moreover, an analysis of covariance, with site type