



Fig. 9. Changes in trail laying and numbers of invading ants following the access of a colony to a new foraging arena

workers stretched their bodies outward toward the object, often holding this posture rigidly for periods of minutes. Other workers then clambered out over the bodies of their nestmates, and a living bridge began to take shape. When the bridge was completed and some of the ants were able to run over on to the object, the successful explorers then returned to the nest tree while laying odor trails from their rectal glands. The only time that such chemical recruitment occurred was after workers had crossed the bridge and examined the object on the other side. Odor trails were then laid heavily over the surface of the object and even onto the bodies of the nestmates forming the living bridge, a remarkable behavior illustrated in Figure 10. A rapid buildup of ants on the new object then ensued (Fig. 11).

3. Odor Cues in Home Range Recognition

How do foraging workers recognize new terrain as opposed to previously occupied home range? Odor cues appear to play at least a partial role. We