

movements which are not typical of normal walking movements and which are characterized by repeated dorsal arching of the body. This observation is similar to a series of analogous observations made by Brown (1960) which concerned a colony of the little amblyoponine *Prionopelta modesta* Forel from Veracruz: "The centipede showed impairment of locomotor activity of the segments behind the point where the ant had been attached . . . but after a few minutes showed partial recovery." A case was observed in the present study where a chilopod was able to move again several minutes after the sting. However, in this case, because the act of stinging was very rapid, it could not be ascertained for sure as to whether there was an effective sting.

Once immobilized, the prey is dragged by 1 or more workers into the region where the brood is kept. Still there is a lack of any obvious coordination among the various ants doing the work at any given time. However, on the whole, there is a coordination of sorts in that the prey finally arrives at its destination. The chilopod is then dragged to a point varying in distance (several millimeters to 4 cm) from the brood. This action is the most frequent, but occasionally the chilopod can be found even on the brood, or buried among it (1 observation, which apparently was exceptional). The prey remains alive, as shown by some movement of its body.

These observations confirm and supplement the work of other investigators on other species. The partial paralysis of prey has already been observed by Brown (1960) for *A. pallipes* and by Wilson (in Brown 1960) for *Myopopone castanea* (Fr. Smith) of New Guinea. This *Amblyopone* prey paralysis contrasts with other ants, where the prey is killed (Le Masne 1953). In time the prey is carried to the area containing the brood. This observation agrees with Brown (1960) who wrote of *Prionopelta*, "the following day, the ants were found to have removed the centipede . . . to the brood chamber . . ." Consequently the brood are moved and placed on the prey. However, the 2nd movement is less important than the first in terms of the distance covered. Wilson (1958) and Brown (1960), nevertheless, found evidence in nature that the workers of some species of *Amblyopone* transport their brood to the prey when it is impossible to move the latter from the place where it is killed.

In nature, females can be found 2 or 3 m from the nest (foraging?), but in the laboratory nests the female is less active than the workers. She stirs less and spends less time with the brood, but will on occasion glossate the larvae just as the workers do. The queen is likewise involved in mutual lickings with the workers. The queen was never seen to assist in a direct attack on a chilopod, and although such behavior is probable in nature, at least on the part of foundresses, it is clearly much rarer than for workers when the latter are present.

As with the prey of *Aphaenogaster* (Le Masne, personal communication) and most dacetine species

the chilopod is never immediately dismembered by the workers. In fact, the *Amblyopone* contrast sharply with other ants that cut up the food reserved for the larvae.

The *A. pluto* workers open their prey by biting at the intersegmental membranes. They also touch or pull violently on the appendages. Though it is relatively difficult to detach a piece of the leg, the cerci yield more readily. However, workers are most successful at destroying the membrane. Independent of these contacts, several workers touch and bite the extremity of the prey, which is often damaged more than the middle of the body. This fact is a direct consequence of the pursuit. They place their mouthparts on the openings thus made, probably attracted to the fluids flowing from the wounds.

When 1 or more openings are made in the area of the intersegmental membranes, the workers feed on them first. They put their mandibles into the body; sometimes even a part of the head is inserted, and thrust into the soft parts of the organism. When the head of the worker is withdrawn a remnant of food in the form of a long whitish filament can be seen stretching between the labium of the ant and the prey. Though it is indispensable for feeding that the prey be alive at the beginning, the feeding of the different castes can continue after death, although eventually they will have nothing to do with a cadaver. It should be noted that the workers feed or try to feed first, accompanied by wingless queens, regardless of the length of time from the last meal and without regard for their brood. The winged females are much less active than the workers; they do not show up until the prey is immobilized in the region of the brood. However, they try to feed at the same time as the workers.

The males do not participate in the preliminary phases of discovering and capturing the centipedes. The male's position in the feeding succession follows the workers and females in accordance with the ineffectiveness of their mandibles. Although they appear to try their mouthparts on the prey cadaver, every attempt to penetrate the integument on their part is unfruitful. Thus they are obliged to utilize previously cut openings.

To determine the degree of feeding specificity for *A. pluto*, a colony was starved 3 days and then presented with members of various arthropod groups (experimental allophagy). A 1st series of trials was carried out by simultaneously introducing samples of termite workers and soldiers, the first belonging to the genus *Nasutitermes*, the second to the genus *Bellicositermes*. Each introduction unleashed a violent battle in which the termite soldiers momentarily proved superior, causing the death of larvae and sometimes workers. However, the termites were finally killed, and their bodies, treated like other debris, were taken to the zone containing refuse without the ants ever attempting to feed on them.

A 2nd trial, repeated 4 times, with bee's honey