

CIVILIZED ANTS

THEY ARE THE MOST SUCCESSFUL ORGANISM ON EARTH AND THEY MAY BE MORE SIMILAR TO US THAN ONCE THOUGHT.

In a new book, *The Ant World* (Penguin Books; 50¢), British Entomologist Derek Wrage Morley keeps insisting that ants are ants, and must not be confused with humans. But readers who follow him on his rounds through the cities of the ants will find many reminders of human behavior.

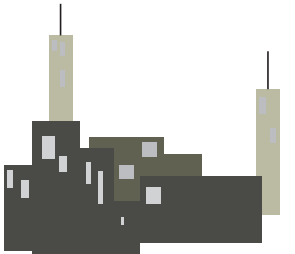
Ants are not the models of industry that they are reputed to be. They spend many waking hours just lazing around or sunning themselves. They stage mock-battles and wrestling matches. Before they sleep they often make themselves comfortable by scooping smooth hollows in the soil. When they wake they stretch their six legs and open their mandibles wide as if they were yawning.

Excitement Centers. Workers of the same species are much alike physically, but psychologically they may vary widely. Some are lazy, some are stupid. Some are eager beavers always looking for trouble. These "excitement centers" are the leaders of the colony. When they see a job that needs doing, they pitch in furiously. Other ants copy their activity, and the excitement spreads until a swarm of ants is busy at the job. If the eager leaders are removed from a colony, its life slows down so much that it may disintegrate.

The sex life of ants appears to be unsatisfactory for all concerned. The males are short-lived nonentities. The females (queens) turn soon after fertilization into egg-laying machines. The workers (undeveloped females) never mate, but they seem to have a variety of social activities that take the place of sex. At every opportunity they nuzzle and caress one another, and this seems to give them great pleasure.

Another custom is economic as well as social. The workers have two stomachs. One contains food for their personal use; the other holds community food. When two ants meet, they are apt to press their mouths together for a transfer of food. This act is so common that if a few yellow ants are fed on red-dyed honey, the entire colony soon turns red. Eventually, every ant in the community gets fed, although many of them have had nothing to do with foraging for food.

Invaders & Guests. Ants have scent-glands on their backs, and in the course of their constant caressing, all the individuals in a colony acquire the same odor. Since ants depend chiefly on smell, rather than on sight or hearing, the colony odor is equivalent to the recognition signs that humans use to identify members of their social groups. If an ant that does not smell just right is introduced into a colony, it is usually treated roughly.



Proofs of ant citizenship can be falsified rather easily, and many intruders take advantage of this fact. A newly fertilized Jet Black Ant queen sometimes hangs around the door of a foreign colony until she takes on some of its characteristic odor. After a time she marches in boldly. The defenders, thinking she is one of them, do not stop her. When she finds the resident queen, she climbs on top of the incumbent and bites off her head. Then she starts laying eggs. Her young can eventually become so numerous that they dominate the colony.

Non-ants, too, can gain ant citizenship. The cities of the ants have such strange, uninvited guests as beetles, spiders, mites and flies. They need not look like ants, only smell like them. To make themselves more welcome, some of the guests exude fluids that delight and intoxicate the ants. The ungrateful guests repay the ants' hospitality by stealing their food or eating their children.

All Kinds of War. Except for the social primates (humans), ants are the most successful organisms that have evolved on earth. They have no serious enemies except other ants, and for this reason their colonies wage organized war on each other. They raid other colonies for food stocks or to acquire territory. They make slaves of their conquered young, eat their helpless larvae and cut their enemies' trade routes. They even fight vicious civil wars with regional parties of the same commonwealth.

Under special circumstances, ants can get along without their fierce nationalism. When young, unconditioned (smell-less) ants from several hostile colonies are mixed together, they live with each other peacefully, like human children of differing ancestry who have never been taught their elders' prejudices and hates.