a change in the report that bees with 90% African parentage were not a special problem in Louisiana (Cantwell 1974).

The swarming propensity of the Africanized bee has led to the assumption that there will be a large wild population of such bees in the United States, thereby increasing the contacts between bees and people. Michener (1973) considers that the bees may cause "... a decrease in our use of the out-of-doors and of people's pleasure there." Although there have been no reports relating that people are now more restricted in their out-of-door activities either in Brazil or in African countries, the idea appears to be based on the increased number of bee colonies in some areas. The bees inhabit animal burrows, termite nests, and other cavities that are present in far greater numbers in the tropics than in our temperate country. If this were a problem here, we have the capability to do something about it. Large areas in South America are uninhabited and not farmed, so there has been little human control of colony populations in the wild. We have the roads and transportation that limit control measures in South America by their absence.

Control and countermeasures against the Africanized bees are not totally ineffective, even in Brazil. For this reason it is incorrect to assume that honey, queen, and package bee producers in the U.S. will have aggressive bees that are not winter hardy, regardless of any efforts on their part. Michener (1975) states that "winter mortality would be a serious problem for southern queen or package bee producers marketing in regions of colder climates, no matter what other features the population might have." We should not underestimate the abilities of American beekeepers. They can rear queen bees in any area of the United States and can manage bees better than most beekeepers in the rest of the world. Even if a largely unchanged African bee were to reach the U.S., its impact on our beekeeping industry would be much less severe than it was upon the beekeepers of Brazil. It is generally recognized that the African bee can be successfully countered by introducing and maintaining gentler stock. Although it would increase their operating expenses, American beekeepers would be able to do this regularly. The undeveloped nature of Brazilian beekeeping, the difficulty of obtaining queens, and their price, made such a program possible only to a limited extent, yet it was very successful. If the bees' behavior in the U.S. were similar to their behavior in Poland, we would have no need for extensive countermeasures. Woyke (1973) managed 30 colonies of African stock in Poland and found them no more aggressive than the dark race commonly found in eastern Europe.

There is no question about the serious nature of the problems created by the introduction of the African bee to Brazil. However, I believe it is wrong to use this bee as a boogeyman for the people of the United States by frequent articles and releases to the media that create fear and that may threaten the livelihood of American beekeepers. Needed research on the bees and their ecology can continue without such publicity. Initially, we were all concerned that even the introduction of one swarm or one queen could lead to a repetition of the Brazilian problem. There is now much less reason to fear such an event, and less need to keep the public alerted to prevent such an introduction. At that future date when there is clear evidence that aggressive Africanized bees have crossed the Isthmus of Panama or some other point nearer the U.S., we can better evaluate the need to inform the public. Until then we need to let the subject rest and avoid any statements that could add to the fears they are meant to allay. The examples and citations that I have used had little effect on entomologists, but these statements and others like them have been misunderstood by people who dislike and fear insects. These people are deeply disturbed by the stories of the Africanized bees and ask about them all the time.

To answer the title, entomology does not need a boogeyman nor a boogeyinsect.

REFERENCES CITED


BOOK REVIEW


This is an extremely expensive book ($51.50) and of limited value to entomologists. While it is far better than Warren Andrew's "Textbook of Comparative Histology" (1959), it is nonetheless inadequate. It is a pity that the author chose to avoid the style, elegance and authoritative ness of some of the many fine textbooks of vertebrate histology, something comparable, say, to Bloom and Fawcett's great "A Textbook of Histology" (1975). The latter costs $29.90.

The author devotes one chapter to the Arthropoda (pp. 173-245) and considers only one species for each of three classes (Crustacea, Insecta, and Arachnida). One may judge the value of the book to entomologists by considering the fact that the section on insects has a text of approximately 6 pages and shows 34 photomicrographs of selected tissues as they may be seen at relatively low power in ordinary histological sections of only one insect, and gives no references. It seems astonishing that entomologists possess nothing between this book and Smith's excellent book on "Insect Cells" (1968) which primarily shows insect tissues as they can be seen with the electron microscope.