of cytoarchitecture. The entire hemisphere was analyzed, and the paper is illustrated with five excellent plates. Campbell's first paragraph reads as follows:

In my work on the localisation of cerebral function, published in the year 1905, it formed part of my task to compare the cortex cerebri of homo with that of two members of the anthropoid ape family, namely, the chimpanzee (*anthropopithecus troglodytes*) and the orang-outang (*simia satyrus*). Through the kindness of Professor C. S. Sherrington, of Liverpool University, I have since been provided with the right cerebral hemisphere of a gorilla (*anthropopithecus gorilla**), which I have examined on lines similar to those followed in the original investigation, and as such specimens are difficult to obtain, and I believe this is the first to be submitted to such examination, I am prompted to offer the following report and ask that it be taken as an addendum to what I have already written.

* The animal was young, almost a baby, accordingly the myelinisation of the cortical nerve fibres was incomplete and imperfectly developed nerve cells (neuroblasts), especially in the deeper parts, were abundant. But, although the specimen differed in this way from those of the other apes examined, the determination of the various areas in which we are interested was not interfered with.

Dr. T. C. Ruch, whose forthcoming bibliography of all primate literature is being made ready for press, informs me that Campbell's study of the gorilla brain is the only complete survey in the literature. An account of Campbell's life will be found in the *Archives of Neurology and Psychiatry,* 40: 566–568, 1938.

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## OCCURRENCE OF THE ORIENTAL RAT FLEA IN THE INTERIOR OF THE UNITED STATES

THE oriental rat flea, *Xenopsylla cheopis* (Rothschild), which is the chief transmitter of bubonic plague to man, was first reported from the interior of the United States by Roudabush and Becker.[1] They took many specimens of this flea during the year 1934 from rats shot on the dumping grounds of the city of Ames, Iowa. Next it was reported from the Middle West by Owen,[2] who found a dairy barn at the University of Minnesota Farm, St. Paul, heavily infested. The present writers now report the occurrence of this flea from two additional mid-western states, Illinois and Ohio.

Among the fleas in the collection of the Illinois State Natural History Survey were found eleven females and six males of *Xenopsylla cheopis,* which were taken by M. D. Farrar at Urbana, Illinois, on December 1, 1937, in elevator refuse. The Ohio record is based upon three females and three males sent in for identification from Youngstown, Ohio. They were taken in an office on August 10, 1938, by E. A. Berglund, and were reported to be biting men and causing considerable discomfort.

Opinion has held that this tropical rat flea can not flourish in temperate climates. Its presence for years in large numbers in the warmer port cities of the United States without being recorded from the interior of our country would appear to have justified such a conclusion. However, being now known from four of our central states, Iowa, Minnesota, Illinois and Ohio, a revision of such an opinion appears to be necessary. There is a possibility that a more resistant race of this flea has been developed in some of our northern ports, such as New York and Boston, and from there has spread to the Central States.

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[1] R. L. Roudabush and E. R. Becker, SCIENCE, 80: 97, 1934.

[2] W. B. Owen, *Jour. Parasitology,* 22: 512, 1936.

## SCORPION STINGS

I HAVE read with much interest the contribution by H. L. Stahnke on "The Venomous Effects of Some Arizona Scorpions" in the issue of August 19. A brief account of personal experience may have interest.

About 20 years ago I was stung on the top of my right foot, just at the base of the little toe, at about 10 o'clock at night. A small red spot appeared and pain began promptly, increased in volume, and soon the entire foot seemed to ache. There was only slight swelling then or later. The pain gradually diminished during the following day.

The most pronounced effect was what appeared to be a nervous reaction. As I naturally am a heavy sleeper and was tired physically, I do not know what happened during the night. The next morning, however, the tips of my fingers, toes and ears and the point of my nose and my chin throbbed and twitched noticeably. There was a slight itching sensation and also somewhat the same feeling that a foot has after being "asleep."

The twitching was a definite muscular reaction, and the extremities actually moved spasmodically. This continued during the first day but gradually diminished during the course of the second day after the stinging.

After the attack, the scorpion retreated into a deep crevice in an unfinished portion of the room and could be seen but not captured. It appeared to be about 3½ inches long. This occurred at the Federal Plant Industry Field Station near San Antonio, Texas.

It should be noted that I am markedly resistant to some poisons. I am practically immune from poison ivy infection, very resistant to local anesthetics and