being recorded from the United States.[1] This note presents another record and comments on the conditions under which the mammals may exist before being discovered as well as upon their food habits and the method of carrying the young.

In March, 1928, the writer was asked to identify a "rat" that had been found on a bunch of bananas. The "rat" proved to be a female opossum, genus Marmosa, with two young firmly attached to her mammae. The species was not *M. isthmica,* with which the writer is familiar, but was, possibly, *M. zeledoni.*

It is difficult to understand how an animal as delicate as these opossums appear to be could withstand the adverse conditions met in such a trip. Granting that the journey from the plantation to the hold of the ship is not very severe, the survival of the young in a hold the temperature of which is held at 57° F. is remarkable, as this temperature is much lower than that encountered in their native habitat. Moreover, the bananas are green and so are not fit for food.

The specimens that came into my hands not only had survived the voyage from Central America to New York City, but the trip to Albany, seven days in cold storage there and finally a trip by truck to Schenectady. The animal was first seen in Albany, but eluded capture. It was found later on a stem of bananas hanging in a ripening room in Schenectady where the fruit had been taken. On capture the mother and young were placed in an empty candy jar where the writer first examined them. After the escape of the female the two young were preserved for dissection.

The point brought out by Kraatz concerning the food habits is of interest, for one species of the genus, *M. isthmica,* appears to do well on a variety of tropical fruits if they are ripe. One specimen kept by the writer starved to death without attempting to eat coconut or fresh sweet corn and without molesting the two young she had been mothering, and which survived her. Others have been kept for several weeks on banana and papaya. Donato, the Indian overseer, assured me that this species dies if not fed ripe banana, and my experience verifies his statement. With this in view, how do the stowaways survive the trip with apparently nothing to eat but green bananas? Is it possible that they find food of some other sort, insects, for instance? The specimen from Schenectady survived two weeks or more; caged specimens in Panama died in a day or two if not fed.

Young observed in Panama still clung to the female after their teeth had developed and they were not nursing. At this stage of development they clung to the female with their mouths, usually seizing the fur on the sides or on the ventral surface.

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[1] SCIENCE, February 24, 1928; April 20, 1928; March 14, 1930.

## WHEN BELIEVING IS SEEING—AN OPTICAL ILLUSION

DURING a stormy Atlantic crossing not long ago the writer observed a most striking demonstration of the way in which the eye may be aided, or, as in this instance, deceived, by the sense of equilibrium. The ship had been tossing violently for several days and most of the passengers were confined to their staterooms. A group of us, however, were seated one evening near the head of the main stairway. The opposite side of the lounge, seen across the intervening open space of the stairway, quite obviously rose and fell with the motion of the boat, as we, in the group of observers, alternatingly rose and fell.

After watching the apparent motion in an absent-minded way for some time it occurred to the writer to question it and to endeavor to ascertain how this visual impression of motion was registered. How were our eyes able to gauge the movement? By what was it measured? Motion can be "seen" in any one of several ways, but in each case an adjustment of the eye muscles is involved, and this adjustment defines the character and the direction of the movement. We braced our bodies and chairs against the movement of the boat. Our heads were held rigid and our eyes fixed upon a certain point to avoid any muscular adjustment to actual movement on the opposite wall. In spite of every precaution the wall of the saloon opposite to us still obviously rose and fell, see-saw fashion, as our bodies traveled in the opposite direction.

A careful examination of all visible portions of the room and stairway revealed no moving or swaying objects. The night was inky-black outside, with no sign of a light at sea to mark the horizon. Yet the motion continued to be so "visible" that it was hard to believe that no change of focus was necessary in following it. The conclusion to which we were finally forced was that when our semicircular canals registered motion for ourselves, in a certain direction, our minds, receiving this message, passed on to our eyes a demand for what was logically to be expected of them. They being faithful cooperators obediently "saw" what they were supposed to see at a time when our bodies were being tossed up and down in space. In this case, the thing to be expected was the motion which has been described, of the floor, walls and ceiling of the heaving ship's saloon; so this was what they "saw."

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