

ZOOLOGY

NATURE RAMBLINGS



Opossum

► WHEN DANGER threatens, the opossum falls into a limp, lifeless heap. He hopes, by playing dead, to make himself unappetizing to even the hungriest of his enemies.

This stratagem shows a poor understanding of animal psychology, especially of hungry animal psychology, because opossums are rarely known to attain a ripe old age. "Playing 'possum" is a one-sided game in which 'possum is loser and winner takes all.

Hazards start early in the life of the opossum. Opossums are marsupials, that is, they carry their young in a pouch in the manner of kangaroos. They are the only marsupial native to this country. Nature has devised a ruthless aptitude test for newborn opossums, to fail which is fatal. They must find and climb into the pouch where warmth and food are waiting, or die.

The contestants in this life-and-death "entrance exam" are pitiful creatures. At birth opossums are blind, deaf, and incredibly tiny. Fifteen of them weigh about an ounce. Each baby opossum is smaller than a bumblebee.

The entrance to the pouch, hidden amongst the hairs of the mother's abdomen, is small and hard to find. The young opossum must grope blindly until he reaches the opening, and then pull himself up and in.

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But gaining the sanctuary alone is not enough; he must get there ahead of his brothers and sisters, because there may not be enough teats to go around. There may be as many as 18 young in a litter and only 12 teats. The first dozen fasten themselves to a teat and do not let go until weeks later when they have grown ten-fold. The six laggards who finish last in the race for the pouch are doomed to death by starvation.

The lucky opossum that grows to full stature is about the size of a house cat. To reach this size, he has had to evade foxes, wolves, wildcats, owls, hawks, and all the creatures, including man, who like to lurch on young opossum.

However, not all opossums are that large. There is one kind of miniature opossum that lives in South America. They sometimes arrive in this country as unwilling stowaways in bunches of bananas. Presumably, when the bananas were harvested, the pilfering opossum "played 'possum," and before he knew what had happened, he found himself en route to foreign parts.

For the 'possum it is just one more perilous journey; awaiting him at the end of it, in all probability, lurks the store cat.

Science News Letter, February 6, 1954

MEDICINE

ACTH Saves Lives in Rare Operation Complication

► ACTH, PITUITARY gland hormone first famous as an arthritis remedy, has saved lives of patients threatened by a rare but almost always fatal complication following major operations, Drs. John V. Prohaska, Michael C. Govostis and Matthew Taubenhause of Chicago report in the *Journal of the American Medical Association* (Jan. 23).

The complication is a colon inflammation known as pseudomembranous enterocolitis. It is characterized by fever, increase in white blood cells, diarrhea, weakness, lethargy, abdominal pain, tenderness, gaseous distention and paralytic ileus.

The real cause of the condition is not known. The fact that it occurs rarely makes it difficult to diagnose. Heretofore there has been no known treatment.

The Chicago doctors report immediate, complete and in one case "spectacular" recovery of three gravely ill patients treated with ACTH. In contrast, four other patients who suffered the same complication but did not get ACTH died. It was after seeing these patients die that the doctors decided to try ACTH.

Why this hormone is effective in this condition is not known. The doctors are exploring the possibility that the disease is one of tissue necrosis resulting from antigen-antibody reaction.

They warn that intestinal inflammation due to bacteria should be ruled out before ACTH is given, because any bacterial disease would be markedly aggravated by the hormone.

Science News Letter, February 6, 1954

GENERAL SCIENCE

Science Service Director Given Education Award

► WATSON DAVIS, director of SCIENCE SERVICE, was presented a Bausch & Lomb award for significant achievement in the field of science education.

The presentation, in the form of an inscribed binocular, was made by George E. Lawrence of the Bausch & Lomb scientific instrument department at the annual dinner of the Washington Academy of Sciences on Jan. 22.

Science News Letter, February 6, 1954

GEOPHYSICS

Plan Eclipse Flight to Spot "Northern Lights"

► THE "NORTHERN lights" may be seen next June, for the first time during the day, if plans for airplane flights to the auroral zone during the solar eclipse are successful.

Dr. Sydney Chapman of the Geophysical Institute of the University of Alaska at College revealed to a meeting of the National Academy of Sciences in Washington that the Royal Air Force was planning to send several planes into the Greenland-Iceland region at the time of the June 30, 1954, eclipse of the sun.

Flying in the auroral zone above the level of most clouds when the sun's bright light is suddenly shut off by the moon, scientists who will be aboard the planes hope they will be able to catch the first daytime glimpse of the aurora borealis. Dr. Chapman believes that the aurora is probably much brighter during the day than at night, since the shimmering curtains of light are thought to be caused by radiation and particles poured out by the sun.

On occasion, scientists have spotted the brilliant auroral patterns during the twilight period. The sun's bright light, however, eliminates any chance of seeing the northern lights during the daytime, except when the path of the solar eclipse happens to hit the auroral zone.

Scientists at Cornell University, Ithaca, N. Y., Dr. Chapman reported, are trying to detect the daytime aurora by use of radar.

Science News Letter, February 6, 1954

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