EMBRYOLOGY

Rabbits Become Foster Mothers of Sheep

➤ THREE BRITISH SCIENTISTS have succeeded in making rabbits temporary mothers of sheep.

Eggs from pregnant sheep have been transferred into female rabbits where they continued to develop normally for at least five days, R. L. W. Averill, C. E. Adams and L. E. A. Rowson of the Agricultural Research Council, Cambridge, England, reported in *Nature* (July 23).

While normal cleavage of the transferred sheep eggs continued in the uterus and Fallopian tubes of the rabbit foster mothers, rabbit eggs in the same organs failed to show development.

Successful transfer of mammalian eggs from one species to another is not necessarily tied to the animals' ability to breed, as had been generally thought, the scientists concluded.

For the experiment, they removed 18 eggs, in the two-cell through the 12-cell stages of development, from sheep and transferred them to the Fallopian tubes of pregnant rabbits. Four to five days later, they dissected the rabbits and found nine of the sheep eggs attached to the uterus or Fallopian tube walls, all with normal development.

Two of the sheep eggs from rabbits were retransferred into a female sheep. Sixteen days later, she was dissected and two normal embryos were found.

Two immediate practical uses for the discovery, the scientists said, were:

1. They hope to use their technique as a test of viability of sheep eggs in the earliest stages;

2. Rabbits may now serve as "incubators" for the long-distance transport of fertilized sheep eggs.

Science News Letter, July 30, 1955

INVENTION

Pocket Recorder Receives Patent

➤ INTERVIEWS on the spot can be recorded with a pocket-sized wire recorder requiring no outside power source.

The portable recorder, invented by Louis A. McNabb of Davenport, Iowa, measures one and three-quarters by four and one-quarter by seven inches.

The device weighs only two and one-half pounds.

The small recorder is powered by two dry cells and two miniature "B" batteries. Mr. McNabb claimed that his recorder eliminates "wows" as well as the "Donald Duck" sound of reversed speech when the wire is being rewound.

In addition to other devices on the pocket recorder, Mr. McNabb has provided a used and unused wire indicator and a breakage detector.

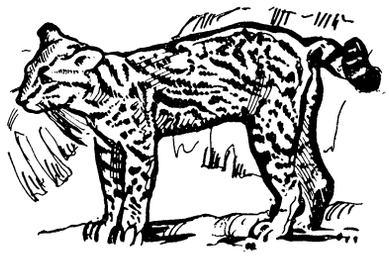
The pocket recorder was awarded patent No. 2,713,618.

Science News Letter, July 30, 1955

MAMMOLOGY

NATURE RAMBLINGS

by Horace Loftin



Tropical Cats in America

➤ LOOKING LIKE an overgrown, speckled tabby cat, a 20-pound ocelot, such as the one shown in the illustration, recently was stalking the parks of the nation's capital after wandering away from a pet shop. The tropical import was hardly made to feel at home, however.

Hounds and hunters gave him no rest. Or rather, the ocelot gave them no rest, for he was hunted night and day.

Other tropical cats, taken to wandering, have used the United States as a temporary home or even established themselves here permanently. The southwestern states, bordering on Mexico, have four exotic big cats—ocelots, jaguars, margays, and jaguarundis or eyras. Their wanderings have been surveyed by Naturalist Raymond J. Hock in the *American Midland Naturalist* (April).

Biggest and most ferocious of the exotic cats in the United States is the jaguar, *Felis onca,* the famed "tigre" of South America. He is also the best known and most widely distributed of them. The jaguar ranges over parts of Texas, Arizona and New Mexico, and there are several reports of his presence in California.

The last jaguar killed in California, way back in 1860, was attacking an Indian dressed up in mule deer antlers and skin when he was felled.

The ocelot, *Felis pardalis,* smaller cousin of the jaguar, seems to be an occasional visitor across the line from Mexico. He is found in the extreme southern section of Texas and rarely in Arizona. When fully grown, he is about 50 to 55 inches long, including about 18 inches of handsome tail.

Generally, this nocturnal cat lives in forests and thick vegetation. He makes his meals off small mammals and birds—including the farmer's hens when he can get to them.

The jaguarundi and the margay are less often seen. In fact, the elusive Texas margay, *Felis wiedii cooperi,* has only been taken one time, back in the last century. However, this small cat probably makes his permanent home in northeastern Mexico.

The jaguarundi, *Felis yaguarondi,* is a slender cat with an otter-like body and a small head. His tail is about as long as his sleek four-foot body. While he ranges southward as far as Argentina and Paraguay, the race that invades the United States only gets into the border country of Texas and more rarely into Arizona.

While these tropical cats are mainly "wetbacks," sneaking into the United States from Mexico, this country is well represented with native specimens of the family.

Largest and probably most widely scattered of the native cats is the mountain lion, or cougar, *Felis concolor.* The old bobcat and the Canadian lynx add to the big cat representation in this country.

Often, a big domestic Tom gone back to nature sets up a "wildcat" scare in a farm neighborhood. These can have mighty sharp claws and teeth, and the wise man treats them as "wild cats," too.

Science News Letter, July 30, 1955

GENETICS

Radiation Increases World Death Rate

➤ BETWEEN 2,000 and 300,000 more deaths per generation are caused by world-wide radiation effects of A-bombs and H-bombs upon human heredity.

This new and pessimistic calculation by Prof. J. B. S. Haldane of University College's department of biometry, London, appeared in *Nature* (July 16).

Radiation effects on the future of the human race are judged by Prof. Haldane to be about ten times more serious than suggested by Sir John Cockcroft, Britain's top atomic expert.

Prof. Haldane, one of the world leaders in statistics dealing with human factors, argues that the radiation dose needed to double human mutation rates is little more than three roentgens per generation, compared with 50 roentgens used by Sir John and 80 roentgens used by Prof. H. J. Muller, American geneticist-Nobelist of Indiana University (see SNL, May 7, p. 291).

Because more than half the world's humans work outdoors and many, as in India, live in flimsy houses, the protection of houses against radiation has been overrated, in Prof. Haldane's opinion.

The effect of widely spread products of atomic explosions is a very complex problem, he pointed out. Estimates of effects on humans are largely based on mutations, or changes, in heredity germ plasm that show up in fruit flies and in mice. Prof. Haldane suggested validating the reasoning from mice to men by experiments on tissue cultures of mice and men.

Radiation effects show up by transferring deaths from ages later than usual for parenthood to ages before it.

The radiation death toll discussed is not that which would occur in an atomic explosion used in war, but the effect on future heredity of such radiation spread over the world by test bombs.

Science News Letter, July 30, 1955