

THE INSTRUCTIVE STOMACHACHE*

Scientists are inducing stomachaches in coyotes to discourage sheep predation and thereby eliminate the pressure for use of highly lethal poisons which menace virtually every creature in the environment.

If the experiments currently taking place at the University of Utah can be translated into widespread practical application, destruction of livestock by predators could be controlled without resort to large-scale wildlife extermination programs.

Moreover, there is the exciting prospect that those endangered species whose members are dwindling because of diminishing food supplies might be conditioned by man to shift to more abundant food sources.

Prof. Carl R. Gustavson has been conducting the basic experiments with coyotes by feeding seven of them meat containing lithium chloride, a chemical agent which causes temporary nausea and vomiting. After the animals consumed the lamb laced with lithium chloride, they refused to attack sheep. The lithium chloride is a type of salt which neither appears to linger and accumulate in an animal's system nor causes death to any creature which might ingest it.

Gustavson admits his work is in the preliminary state. He needs to acquire more data, ascertain exactly how long the conditioned aversion will last, determine whether the mother coyote passes on her aversion to her pups and learn if animals can be taught to eat as well as reject particular foods.

Out in the field, he must demonstrate that he can get all the sheep-

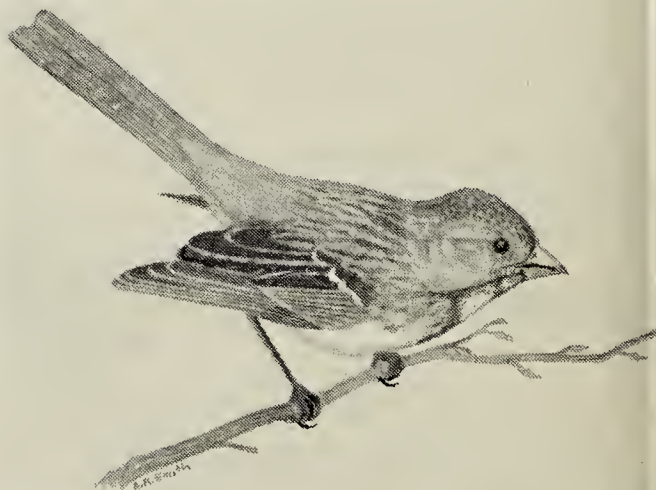
killing coyotes in an area to take the bait; find out what other animals will seize the bait, and determine what the impact will be on the ecosystem if coyotes' diets become less diversified.

Gustavson figures he needs at least a year, maybe two, to achieve his objectives, and he is seeking federal, state and private funds to continue his work.

The U.S. Interior Department is proceeding with the development of odor repellents and electrical fences.

As the habitat for wildlife shrinks before man's encroachment, predators are finding it harder to locate food. Their ultimate survival obviously depends upon preservation of as much of their remaining habitat as possible. Unfortunately, man's population growth dictates a situation which should get worse before it gets better.

Recognizing this, Gustavson points out that canines, big cats and other reputed flesh-eaters have been found to supplement their diet with insects and vegetation. This doesn't mean that one day we shall have coyotes grazing peacefully in the midst of a sheep herd. But perhaps some pleasurable conditioning can broaden the nutritional reliance of predators on the plant world when their prey is either hard to come by or is cherished by man.



Harris's Sparrow

A. R. Smith

*From *Conservation News*, Aug. 15, 1974.