



THE LAST ROUNDUP

The Longhorns' Last Roundup has become a permanent, Government-protected institution on the Wichita Mountains Wildlife Refuge in Oklahoma, administered by the U. S. Biological Survey. Established ten years ago, the herd now numbers 105 head. Although they are not part of the native American wildlife, the longhorns have been given a home on the range along with bison, elk, and other "native Americans," because of the important part they played in the early history of the West.

ZOOLOGY

Muskrat Skins Now Support Million-Dollar Business

Conservation Measures for Hundred Disappearing Species Engage Attention of Mammalogists

MUSKRAT skins, once a drug on the fur market at 25 cents apiece, now readily fetch \$2 for prime quality, and in the state of Maryland alone support a business of \$2,000,000 a year turnover.

The rise of the once humble muskrat was the subject of an address before the meeting of the American Society of Mammalogists, by the veteran naturalist Vernon Bailey, recently retired from the U. S. Biological Survey after nearly half a century of service.

"The muskrat industry is recognized as one of the important resources of the state and good muskrat marshes are as valuable as any farm land," said Mr. Bailey. "In fact, they are considered a very popular branch of agriculture, as the muskrats take care of themselves and only have to be harvested in the three winter months when their fur is at its best and there is not much else doing. Three or four muskrats to an acre is about the average yield, but on

a good marsh well managed six or eight to an acre is not an unusual crop."

With the collaboration of Douglass Hayes, Mr. Bailey is developing types of traps for use in taking muskrats, that will be more humane and also less liable to lose their catch than the steel traps now in common use.

Beaver Family Life

Beaver colonies once marked almost every creek in the country; civilization, first with hunters and trappers, then with deforestation and stream pollution, almost wiped them out. Now they are beginning to stage a comeback in some favored places.

To get a better understanding of beaver ways, in order the more effectually to befriend them, G. W. Bradt of the Michigan Department of Conservation made a special study of beaver life in his own state, which he summarized before the meeting.

A "typical" beaver colony, he found,

consists of one family, including the two parents, the yearlings born the previous year, and the kits of the current year. The average, for 57 colonies studied, was about five animals.

The average number born in a litter is three or four. There is only one litter born a year. Yearlings are permitted to remain in the colony, but the two-year-old beavers leave or are driven from the home colony shortly before the birth of the second annual litter. They do not always follow watercourses during emigration, but may undertake long overland journeys.

The beavers studied by Mr. Bradt cut between 200 and 300 trees each per year. One acre of poplar trees should support an average beaver colony from one to two and one-half years, depending on circumstances.

Yellowstone Elk

Yellowstone Park's northern herd of elk, that winter in the valleys near the northern entrance at Gardiner, Mont., is estimated to contain 9,673 animals this year. An actual count, made during a census conducted between April 10 and 15, tallied 8,318. Because a blizzard and other hampering circumstances prevented a count under normal circumstances, it was the judgment of the naturalist-census takers that an addition of 10 per cent. would more nearly represent the actual elk population.

The taking of the elk census was described by Victor C. Cahalane of the U. S. National Park Service. The count is always made near the end of the winter, while snow still covers the ground and the animals have not begun to migrate and scatter to their spring and summer quarters.

Census takers are experienced naturalists and rangers, traveling on skis or snowshoes, working in little groups over predetermined and assigned areas. They count the animals they actually see, and do their work as rapidly as possible, to avoid counting the same ones twice in case a herd moves.

An airplane was used in making a supplementary count once, in 1935. It was found, however, that the more laborious method of counting on the ground was more thorough and accurate, so the airplane experiment was not repeated.

Dying Out

At least 100 mammal species now living may pass out of existence within the next century. North America, with 25 extinct forms, leads all the world

in its reckless destruction of irreplaceable species.

This indictment and warning were uttered by Dr. Francis Harper of the American Committee for International Wildlife Protection. He said, in part:

"The American Committee for International Wildlife Protection is preparing an account of the extinct and vanishing mammals of the world. Approximately 390 species and subspecies come within its scope. Among the 54 which have become extinct since Graeco-Roman times, 46 have been lost within the last century.

"A majority of these mammals have been exterminated by hunting (including trapping and poisoning), chiefly by civilized man.

"In Australia the chief agencies of extinction are such imported pests as the fox, rabbit, domestic cat, and house rats; in the West Indies, introduced rats and the mongoose.

"The rate of extinction is being steadily accelerated."

Musk-Ox Skull

No human hunter, probably, was responsible for the death of Indiana's last musk-oxen, yet they apparently died during comparatively late prehistory. A skull of one of these animals, now represented by a species that lives only in the high Arctic, was described by Drs. Marcus Ward Lyon and Fred T. Hall, of South Bend, Ind.

The skull was found near Crawfordsville, Ind., shallowly buried beside a creek with one of its horns protruding from the bank. Kept as a local curiosity for a while, it was finally sent to the U. S. National Museum.

This particular musk-ox did not belong to the living musk-ox genus, but to a related type long since extinct.

Once a Swimmer

That pesky mole that roots around in your garden and tunnels under your lawn—is he the descendant of a race of swimming animals?

Nothing would seem more unlikely, yet there are features in his anatomy that strongly suggest the evolution of moles from aquatic forebears, Dr. Berry Campbell of the Western Reserve University School of Medicine told the meeting.

The shape and arrangement of the bones of the shoulder and forelimb are particularly suggestive of originally aquatic use, Dr. Campbell explained. Further link in the chain of evolutionary evidence is the existence of a somewhat mole-like aquatic animal known

as the desman, with an intermediate arrangement between the mole's set-up and the skeletal anatomy of primitive and possibly ancestral forms with longer bones.

Animals Hold "Real Estate"

Many wild mammals, like many birds, have a tendency to "stake a claim" to a certain area and vigorously defend it against all comers, Dr. William Henry Burt of the University of Michigan told his fellow-scientists.

The defense of the territory is displayed chiefly during the breeding season, although some species, such as the

squirrels, are known to defend foraging territories as well. Young animals, Dr. Burt said, usually leave the home territory as soon as they are grown up; in some instances their parents actually drive them out.

Old animals in established territories are familiar with every retreat and are relatively safe from enemies. Young animals, on the other hand, while pioneering in new territory are more vulnerable. Here is where predators, such as hawks, owls, and foxes, get in their effective work in keeping down the number of fast-breeding species.

Science News Letter, May 15, 1937

PUBLIC HEALTH

Lead Poisoning Rates Worst As a Hazard to Workers

Worse Than Silicosis; Carbon Monoxide and Other Fumes Also Constitute a Serious Health Danger

LEAD poisoning, and not silicosis or any of the other newly prominent occupational diseases, is the chief hazard to the health of workers in industry, Dr. William D. McNally of Rush Medical College, Chicago, reported to the Midwest Conference on Occupational Diseases in Detroit.

Carbon monoxide and fumes from oxides of nitrogen in dynamite explosions were described as other serious industrial health hazards.

"Wherever dusts are found containing lead, whether it be in mines, smelting, in the manufacture of lead pigments, or in the manufacture of storage battery plates," Dr. McNally said, "poisoning is certain to result."

"There are over 900 occupations causing injurious effect upon the health of the individuals engaged in them," Dr. McNally stated.

Silicosis, caused by inhalation of silica-laden dust, predisposes the lining of the bronchial tubes to attacks of bronchitis, he explained. The bronchitis lays a foundation for later-developing pneumonia and tuberculosis.

Preventive measures must include the examination of every new employe, good ventilation, masks, and the use of wet processes wherever feasible. Post-mortem examinations are advocated in all cases of death where the worker had been engaged in a dusty atmosphere, as microscopical and chemical examination

of the lungs will definitely prove whether or not the cause in question is one of silicosis.

Carbon monoxide, one of the most important poisons associated with human life and industry, is without doubt the oldest known poison, Dr. McNally said. Wherever gasoline engines are operated, wherever gas heat appliances are used or wherever there is incomplete combustion of any carbonaceous material, this gas is present. The excellent results obtained in the treatment of carbon monoxide by carbon dioxide and oxygen renders all other methods superfluous.

The danger of inhaling oxides of nitrogen was emphasized because of their delayed action. A workman may leave his job complaining of only a bronchial irritation after inhaling the fumes of a dynamite explosion. Several hours later, his lungs become edematous and death may occur within 24 hours.

Danger in the use of solvents such as benzol, carbon tetrachloride, and trichlorethylene, lies not only in industry but in the home as well. Quantities larger than one pint, Dr. McNally warned, should not be sold to the laity.

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The Antarctic region is almost covered by glaciers, Greenland is about three-fourths covered, and Alaska, which ranks third in glaciers, is only about three per cent. overspread by glacial ice.