

ZOOLOGY

Surplus Bison, Elk and Deer Distributed by Government

Forest Service and National Parks Have More Animals Than they Can Keep, Thanks to Conservation Program

SO EFFECTIVE has been the conservation of game animals by agencies of the U. S. Government that it is now possible to distribute a surplus quantity of bison, elk, and mule deer for exhibition and breeding purposes, and some bison and elk are even available to be used as meat.

The two agencies of the Federal Government engaged in this distribution are the National Park Service of the Department of the Interior and the Bureau of Biological Survey of the Department of Agriculture. Different methods of distribution are pursued by these two bureaus.

The National Park Service, which disposes only of surplus buffalo and elk, from Yellowstone National Park, has authority to give a limited number of these animals to municipal zoos and other public institutions and to individuals who can give assurance that they have facilities available for properly caring for the animals. No charge is made for them, but in each case the recipient is required to pay all expenses incident to their capture, crating, and delivery. In addition to furnishing animals for exhibition purposes, after this demand is met, under special congressional legislation, the killing of any remaining surplus buffalo from the Yellowstone herd for use as meat is permitted, in order that the herd may be kept down to a total of 1,000 head, the maximum number which the range will support.

The Bureau of Biological Survey, on the other hand, has a problem of disposing of surplus buffalo, elk, and mule deer, in order to prevent over-grazing on its big-game preserves. This year the bureau has called for bids on 141 buffalo, 162 elk, and 45 mule deer. Some sales already have been made and it is believed that most of the animals will be sold, but by making special arrangements, a State or municipal park or zoo may obtain a few animals at cost of handling and transportation. Surplus buffalo and elk that cannot be disposed of in this way will be sold

for meat, although animals less than two years of age will be sold only for breeding and exhibition.

The mule deer, which scientists of the Biological Survey state are suitable only for regions west of the Mississippi River, will be disposed of only for exhibition and breeding.

The National Park Service states that the shipping weight of buffalo, crated, varies from 850 pounds for yearlings to 2,000 pounds for four-year-olds and over. The shipping weight for adult elk, crated, varies from 600 to 800 pounds.

In previous years the surplus Yellowstone buffalo to be used for meat were sold to the highest bidder, but recently the demand for this meat has decreased and it was therefore suggested that the best use that could be made of the meat was to offer it to the Indian tribes in the vicinity and to the relief organizations of adjoining states.

Science News Letter, December 10, 1932

ASTRONOMY

Harvard Astronomers Get Photo of Meteor Spectrum

PHOTOGRAPHIC records of the spectrum of a meteor, believed to be the first ever purposely obtained, were made during the recent Leonid shower by Dr. P. H. Millman of the Harvard College Observatory. Dr. Millman carried on his observations at the Oak Ridge station of the Harvard Observatory, and on the morning of Nov. 16 succeeded in photographing the spectra of persistent trains of two unusually bright meteors. Examination of the bright bands in these "rainbow photographs" will tell scientists what elements were burned during their swift and brilliant flight of annihilation through the earth's upper atmosphere.

In spite of the disappointingly low number of meteors, Dr. Millman and his cooperators succeeded also in obtaining direct photographs of the brighter of the two meteors, as well as sim-

ultaneous observations of both from two or more well separated stations. These will enable the astronomers to make good determinations of their heights.

On the opposite side of the country, Dr. Walter T. Whitney, director of the Frank P. Brackett Observatory of Pomona College, in California, obtained an excellent direct photograph of a brilliant Leonid, and he and his associates saw as many as 70 per hour on the morning of Nov. 16. On the basis of his observations, Dr. Whitney suggests that the density of the Leonids may be greatest on the inner side of their stream, but he withholds definite conclusion pending comparison with reports of other observers.

Science News Letter, December 10, 1932

SEISMOLOGY

Earthquake Reported Near Chilean Coast

AN EARTHQUAKE of moderate severity occurred near the coast of Chile north of Santiago, on Tuesday morning, Nov. 29, at 6:11.1 o'clock, eastern standard time. The epicenter, as determined by scientists of the U. S. Coast and Geodetic Survey on the basis of data gathered telegraphically by Science Service, was located approximately in 32 degrees south latitude, 72 degrees west longitude.

Science News Letter, December 10, 1932



ONLY A STREAK OF LIGHT

With a few bright lines on either side; yet this is a high prize of astronomical effort, for it is the spectrum of a meteor, caught during the recent Leonid shower by Dr. P. M. Millman of Harvard College Observatory.