## ANIMAL INTRODUCTIONS UPSET CONSERVATION

BY KARL P. SCHMIDT CHIEF CURATOR, DEPARTMENT OF ZOOLOGY

No biological phenomenon is more familiar to the general public than the calamitous spread of foreign species of animals and plants introduced into a new country either by design, as in the case of the European rabbit in Australia and New Zealand and the "English" sparrow in our own country, or by accident, as has been the case with most of the plants known to us as weeds and with many destructive insect pests. Some such introductions have produced spectacularly disastrous results and have called forth the most urgent and stringent measures to exterminate or to "control" the introduced animal.

A case in point was the recent proposal to introduce the Indian axis deer as a game animal into the island of Hawaii. This deer had already been introduced in the smaller Hawaiian island Molokai. On the larger island, with the certainty that it would invade the Hawaii National Park, the proposal met with such active protest from conservationists and biologists generally that it has been abandoned.

What success such an introduction will have is always unpredictable. An innocuous-seeming plant or animal may produce the most unexpected results. The introduction of the South American water-hyacinth in Florida as an ornamental plant, with its subsequent rapid spread, now costs the State of Louisiana, for example, millions of dollars to keep waterways open. The ordinary sheep ranch of some 20,000 acres in southern New Zealand must employ a full-time rabbit catcher. No danger could have been foreseen in the introduction of the graceful Alpine chamois into the mountains of New Zealand, but its success there has made it an enemy of the sheep rancher, since its trails at high altitudes promote the downward creep of the mountain shale and make it impossible to re-establish grasses on the over-grazed slopes. It is such instances that made the Hawaiian conservationists wary of permitting introduction of the axis deer.

## CONTROL BY NATURAL FOES

On the other hand, many introduced animals and plants that have become imimportant economic pests have been brought under control by introducing their natural enemies. Sometimes this may not work at all. The European red fox introduced in Australia turns its attention to the native animals and appears to make no impression at all on the excessive rabbit population. Experience everywhere in the world has been against the introduction of the mongoose to destroy rats or exterminate poisonous snakes; it turns out that the mongoose much prefers ground-nesting birds and domestic poultry. On the success side of the ledger, a pair of cactus-eating insects brought the vast and growing acreage of introduced American prickly pear under control in Queensland; this was a kind of poetically just repayment for the Australian ladybird beetle, which was introduced in Californian orange groves as the most effective of the controls of the cottony cushion scale insect. Such "biological control" forms one of the main segments of the important practical field of economic entomology, in which the romantic search for specific insect predators vies in interest with the work of the "pure science" entomologist.

#### THE POTATO BEETLE CASE

The extraordinary accusation in the Russian press in the summer of 1950 that American authorities had engaged in "biological warfare" in distributing the Colorado potato beetle in the Russian zone of Germany reflects the phenomenon of sudden appearance of great numbers of these beetles, a phenomenon sufficiently familiar to every gardener in this country but perhaps less so to gardeners in eastern Europe, where the potato beetle is only now arriving, after a steady march across France and Germany since its introduction at Bordeaux during World War I. Relatively few animals and plants from the Americas have been successful in Europe and Asia, whereas introductions in the contrary direction are legion.

Without further elaborating the instances of calamitous results of introductions with inadequate knowledge of the results to be expected, it is evident that biologists and conservationists have reason to be acutely aware of the dangers of such introductions.

#### Arkansas Field Trip

Field work to make a survey of the mammals of Arkansas was resumed late in September when Curator of Mammals Colin C. Sanborn left on a month's tour of that state. The work, begun in 1948, was interrupted by the Rush Watkins Zoological Expedition to Siam in 1949.

It is planned to work in the southern part of Arkansas, a region never before visited by mammalogists, all previous work having been done in the Ozark Mountains in the north. Curator Sanborn will co-operate with Dr. John A. Sealander, of the Zoology Department of the University of Arkansas, Fayetteville, who is developing special studies on Arkansas mammals.

### Atom-Bomb Defense Plan Meetings at Museum

The facilities of the Museum were used from September 25 to 29 for day and night sessions of federal and municipal officials who met to analyze and criticize Chicago's plans for defense in case of an atom-bomb attack.

## CHILDREN'S MOVIE SERIES ON SATURDAY MORNINGS

The Autumn Series of free motion pictures for children on Saturday mornings will begin October 7 and continue weekly through November 25. The eight programs are presented under the auspices of the James Nelson and Anna Louise Raymond Foundation in the James Simpson Theatre of the Museum. All of the programs start at 10:30 A.M. On two programs there will be personal appearances by the explorers who made the films. On October 7, Allan Cruickshank, of the National Audubon Society, will tell the story of his adventures in Big Bend National Park, Texas. Murl Deusing, of the Milwaukee Public Museum, will be the storyteller on October 21, with films showing an animal hunt in Africa.

Children may come alone, accompanied by adults, or in groups from schools, etc. No tickets are needed.

Following is an outline of the programs:

#### October 7-BIG BEND ADVENTURE

- A color movie of a spectacular Western wilderness of 1,100 square miles—the Big Bend National Park in Texas
- Talk by Allan Cruickshank, National Audubon Society

October 14-PACIFIC ISLAND

Life on a typical island in the Pacific area Also a cartoon

October 21-SAFARI IN AFRICA

Big game and primitive people of Central Africa

Talk by Murl Deusing, Milwaukee Public Museum

## October 28-EARLY WESTERN EXPLORERS

The travels and adventures of Fremont and of Lewis and Clark as they opened up the wild West

Also a cartoon

## November 4-INDIA

A story of life on a farm and on a tea plantation

Also a cartoon

## November 11-NATURE'S KALEIDOSCOPE

John Kieran's stories of actual happenings in nature, "stranger than fiction"

#### November 18-JAPAN

How Japanese city and farm families live Also a cartoon

#### November 25—THE CIRCUS

The whole circus story from the unloading of the tent and animals to the big-top show

Also a cartoon

Nature is never more perfect than in small things. —Pliny



1950. "Atom-Bomb Defense Plan Meetings at Museum." *Bulletin* 21(10), 5–5.

View This Item Online: <u>https://www.biodiversitylibrary.org/item/25706</u> Permalink: <u>https://www.biodiversitylibrary.org/partpdf/370759</u>

**Holding Institution** University Library, University of Illinois Urbana Champaign

**Sponsored by** University of Illinois Urbana-Champaign

# **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the Chicago Field Museum. For information contact dcc@library.uiuc.edu. Rights Holder: Field Museum of Natural History

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.