

BIOLOGY

Rabbits Menace Food

Importation of European rabbit, an animal with a destructive appetite, threatens our food supply, although no official action has so far been taken.

► AMERICA'S FOOD supply is threatened with the most destructive animal menace in its history and nothing is being done about it.

The European rabbit, which has already ravaged Australia and New Zealand, has been recently introduced into Pennsylvania by sportsmen.

Importations of this rabbit into the United States have heretofore been banned by Federal law, but the sportsmen have skirted this protective measure by transporting the rabbits onto the continent from the San Juan Islands off the coast of the State of Washington, where these pests have lived in isolation since 1900.

Unless the state governments in this country act immediately, scientists say that American farmers face the worst animal enemy in agricultural history.

The European rabbits that were introduced into Pennsylvania for sport have already lived through one winter. It is also believed that the rabbits are now being introduced into other states by hunters.

Raleigh Moreland, assistant chief of game management for the State of Washington Game Commission, disagreed with government wildlife experts who have become alarmed over the introduction of the European rabbit to the continent.

He told SCIENCE SERVICE that the European rabbit has not hurt the economy of the San Juan Islands in any way. Nor have the rabbits which have been brought to that state from the Islands, either accidentally or intentionally, been abnormally injurious.

Mr. Moreland stated that the State of Washington Game Commission will not take action to prohibit the exportation of the rabbit at this time. He suggested that any state worried about the rabbit could easily place an embargo on its importation.

The European rabbit is a "non-classified game animal" in Washington State and therefore its use for any commercial purpose is unrestricted.

Previous efforts in other countries to eliminate the European rabbit scourge have all but failed. From the original 24 rabbits imported into Australia in 1859, there are now an estimated 2,000,000,000.

The European rabbit eats everything in sight. It also burrows holes two to eight feet deep. It causes hundreds of millions of dollars worth of damage to grazing lands, field crops and scenery each year in England, Australia and New Zealand. England considers the European rabbit second only to the common rat as its most serious animal problem.

At present, control of this animal cannot be provided by the Federal Government.

The U. S. Department of Agriculture was not even aware that the rabbit had been introduced into Pennsylvania. The Department of Interior does not have the necessary jurisdiction to intervene on behalf of the farmers, but officially states that "it is a very serious problem."

There is no legal basis for prohibiting the transportation of the rabbit from the San Juan Islands to the rest of the continental United States.

Only if the State of Washington in particular, and other state governments, imposed a ban on the exportation or importation of the European rabbit, can American agriculture effectively deny this four-legged menace an opportunity of literally eating us out of house and home.

The Interior Department explained that if a state banned the rabbit's importation or exportation, then the same Federal law, the Lacey Act, that prohibits their importation from other countries would become effective. It would then make it illegal to transport the rabbit in interstate commerce.

Originally a native of Spain and North Africa, the European rabbit has been exported for sporting purposes into other parts of the world.

It is smaller in size than the brown hare, measuring 11 inches in length and averaging three and one-half pounds in weight. Unlike our cottontails, the European rabbit digs burrows. It is the ancestor of tame rabbits.

The European rabbit has a long history of destruction.

As early as 2,000 years ago, the Romans stocked the Baleric Islands off the coast of Spain with the European rabbit. The rabbits not only undermined the buildings, but ate all the vegetation on the Islands.

The European rabbits were brought first to Smith Island, one of the San Juan group, in Puget Sound by an enterprising light-house keeper who wanted a source of fresh meat.

In 1924, the Navy Department called in experts from the U. S. Fish and Wildlife Service to deal with these animals which were undermining the buildings of the Naval radio compass station on the island.

In Australia, the problem has become a major one. In 1887, the Australian Government was offering a 25,000 pounds sterling (about \$125,000) reward for "any method or process not previously known in the colony for the effective extermination of the rabbit."

Up to 1951, the Commonwealth Scientific

and Industrial Research Organization of Australia reported that Australia had failed to deal with the rabbit.

The British, Australians and New Zealanders have tried poisoning, hunting, ferreting, digging, trapping, gassing and, most recently, diseasing the rabbits. In Queensland, Australia, they strung 7,000 miles of reputedly rabbit-proof wire across the land, to no avail.

Most successful method found to eliminate the European rabbit has been the introduction of myxomatosis, a virus disease spread by certain species of mosquitoes.

It has been found effective in eliminating as much as 96% of the rabbit population in some sections of Australia. Use of this germ warfare has saved the Australian wool industry an estimated \$90,000,000 a year from damage caused by the rabbits. This figure does not include the damage done to crops and scenery.

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ZOOLOGY

Camels Do Not Possess Built-in Water Bottles

► CAMELS, CONTRARY to popular belief, do not have specialized compartments for storing water.

However, they are able to stand increases in body temperature of as much as 11 degrees Fahrenheit, which in man and most other animals would cause critical fevers.

Dr. Knut Schmidt-Nielsen and his wife, Dr. Bodil Schmidt-Nielsen, Duke University zoologists who headed a recent expedition to the Sahara Desert, found these and other facts during a study of just how the camel manages to survive in temperatures that would mean death to most other animals.

"When a human being is exposed to heat, perspiration keeps his body temperature at a constant level," Dr. Schmidt-Nielsen said. "The camel, on the other hand, begins sweating only after a considerable increase in body temperature and even then does not drip with perspiration.

"This stinginess with body moisture is one of the reasons that camels can go for weeks and months without a drink of water."

One of the camels used in the study ate only hay and dried dates for 17 days, the scientists reported. He was often in the scorching sun when the temperature was well over 100 degrees Fahrenheit. At the end of the 17 days, the camel had lost one-third of its body weight.

When finally confronted with an unlimited amount of water, the camel downed 20 gallons.

Another camel under study drank 30 gallons of water in 10 minutes.

Collaborating with the Duke couple were Dr. T. Richard Houpt of the University of Pennsylvania and Dr. S. A. Jarnum of the University of Copenhagen, Denmark. The expedition was sponsored by the Guggenheim Foundation, UNESCO and the U. S.

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