



## **A Brief History of Ground Squirrel Control Efforts in California**

By Sheila Barry

Commonly found dashing in and out of burrows in grasslands throughout California and parts of Washington and Oregon, the California ground squirrel was a resource for the area's first peoples. It provided both food and fur for some Native American tribes. But soon after the arrival of Spaniards and Mexicans and the growing of crops, squirrel populations exploded, and it was labeled a destructive pest.

In the early 1900s, UC Berkeley zoologists Joseph Grinnell and Joseph Dixon attributed the superabundant population of ground squirrels to humans "upset[ting] the primitive balance of things." They wrote that human activities cause some native species to disappear, while others tend to increase and spread, finding conditions for their existence to be improved through man's activities. Squirrels, they noted, have benefitted from "human invasion." People killed their predators like hawks, eagles, coyotes and badgers and cultivated plentiful, new food sources in farm fields.

But a thriving rodent population was not compatible with the state's economic development. Fearing destruction to crops or property, Californians set out to eradicate or at least control ground squirrels. For nearly 50 years, beginning in the mid-1800s, the state legislature authorized counties to pay for each squirrel tail brought in by a bounty hunter. Claims were paid on millions of their tails.

Meanwhile, possible uses of the rodents were also considered. "They were placed upon this earth for a purpose," wrote W.C. Jacobsen, the superintendent of the Rodent Control Division in *The Monthly Bulletin*, a report of the State Commission of Horticulture in 1918. "An idea, a grain-fed hog was palatable, why not a grain-fed squirrel?" He continued writing as if thinking out loud and then described the previous development of a squirrel meat market.

In the 1870s, with knowledge on how to cook a squirrel (old squirrels should be boiled for at least three hours to make them tender) and some recipes for squirrel fricassee, a market for their meat was developed. Tons of meat was sold in markets to Chinese and other immigrants in San Francisco and Oakland.

For at least a few decades, and considered to have “led a cleanly existence,” according to Jacobsen, squirrels were valued for food. But they were not disease free. In 1908 it was proven without a doubt that the rodents hosted fleas that carried the bubonic plague. All marketing of their meat stopped. Their status was relegated back to that of California’s leading agricultural pest with no other possible value.

Fear of the Black Death contributed to a new fervor to eradicate the rodent. The most remarkable effort was a massive statewide campaign. The last week of April in 1918 was proclaimed “Squirrel Week” and the governor of California, William Stephens, directed everyone, including school children, “to do their utmost to relieve the country of all ground squirrel pests.”

If there was opposition to the full-on war on the rodents, it was not recorded. All levels of government, and public and private institutions provided endorsement and financial backing. At the end of the week, on May 4, 1918, at least 100,000 ground squirrels were known to have been killed with thousands more likely dying in their burrows. In addition to being fed poisoned grain, others were suffocated in their burrows with carbon disulphide gas. Despite all of the efforts to eradicate the squirrel, the animal survived. We had no choice but to consider how we might co-exist.

Today, the University of California Division of Agriculture and Natural Resources still provides guidance on using rodenticides (toxic bait and gas) to kill ground squirrels, albeit with different compounds and without the use of schoolchildren. An ecosystem-based strategy to manage pests, informs ground squirrel control. Toxic bait is recommended in the summer and fall when the animals are foraging for seeds. Fumigation may be considered in the winter and spring when soil moisture will keep the gas in the burrow system. And trapping is effective whenever the animals are not hibernating. For more information on Best Management Practices and Developing an Integrated Pest Management Program see:

UC ANR website: Ground Squirrel Best Management Practices (BMP’s)

<http://www.groundsquirrelbmp.com/>

UC IPM Pest Management Guidelines

<http://ipm.ucanr.edu/PMG/r107600411.html>

UC IPM Pests in the Urban Landscape

<http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=26203>

Understanding Livestock Grazing Impacts: Grazing Annual Grasslands and Ground Squirrels

[http://grazingimpacts.info/indicators/selected\\_indicator.php?INDICATORID=CAL191](http://grazingimpacts.info/indicators/selected_indicator.php?INDICATORID=CAL191)