

Bulletin No. 16
July 24, 1923

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Stencil No. 45

SEQUOIA NATURE GUIDE SERVICE

THE COLUMBIA GRAY SQUIRREL

The Columbia Gray Squirrel (*Sciurus griseus*), of California's High Sierras, was formerly abundant in Sequoia and General Grant National Parks and is now again increasing. A year or two ago an epidemic killed probably ninety percent of these squirrels. Their size and silvery gray or blue color distinguish them from other species, while their graceful form and sweeping tails add much to the life of the forest.

This squirrel occurs in the pine belt of western Washington, Oregon, northern California and the Sierra Nevadas. In the eastern United States there are other squirrels similar in color and size, but not close relationship. In these parks they are found in the Upper Austral Zone and the lower half of the Transition Zone. On rare occasions, when food is scarce, they migrate well down into the Lower Austral Zone where acorns and other food are plentiful; but they always return to the higher altitudes.

These squirrels show marked intelligence and are very industrious. Through the breeding season they remain quiet and inconspicuous, but afterwards they are busy, noisy and much in evidence. Young, usually ranging from two to eight in number, are born in June, and seldom more than one litter is produced during a season.

Their nests are sometimes made in hollow trees, but more often they are constructed high up on the limbs and are large, globular masses of twigs and leaves lined inside with mosses, ferns and grasses, shreds of bark or other soft materials. Their ordinary abodes in hollow trees are lined with leaves and fibrous strips of bark.

The young are helpless and homely, blind and with little hair. They remain in the nests for a period of from four to six weeks, by which time they are half-grown and active.

During the mating season the males often fight so that the ancient law of the survival of the fittest obtains; but after mating the males wander away and family ties, except those of the mother and her young, are ended. The mother is often pressed to find food for herself and offspring. An old mother squirrel that raised a family of five young at Colony Mill during the summer of 1912 when hard pressed for food, was noted to travel a distance of over a mile, returning sometimes with but one acorn, a mushroom, or possibly a few pine nuts.

Their food consists of acorns, pine seeds, hazel nuts, berries and mushrooms. They also eat small quantities of green plants, weeds, seeds, and, in winter, the buds of the Black Oak and the inner tips of branches of the Yellow and Sugar Pine trees.

Autumn is a busy time for the squirrels. When nuts are abundant they spend most of their time storing their winter food supply. The young, as well as the old, take part in the harvest. The nuts are gathered and hoarded in hollow trees and under logs, but most of them the squirrels bury a few inches underground. Each squirrel selects his own hunting and storage ground and works alone. After the harvest, each squirrel remains on his own storage ground during the winter.

The Columbia Gray Squirrels are less active and energetic in winter. They do not hibernate, but during storm periods remain in their nests for several days at a time. In fine weather they run over the snow, apparently enjoying the warm sunshine.

These squirrels are good food, and a game animal that, under proper protection, will furnish sport for many years to come. They are subject to epidemics and irregular fluctuations in abundance, a condition which is now being given careful study by the California State Game Commission.

They do practically no harm to agriculture, and for this reason they have not incurred the enmity of man, nor are they in danger through their value as game or for their fur. Their worst enemy is the epidemic which Dr. Harold Bryant has described as a disease of scabies caused by a germ. Their natural enemies - foxes, lynx-cats, coyotes, pine martins, hawks and owls - are not sufficiently numerous to keep their numbers below normal, and with proper protective measures they should remain permanent residents of our California forests for many years to come. They are easily tamed and make attractive pets, but do not thrive in close confinement. When the young are removed from their nests, the mother takes each baby squirrel by the nap of the neck with her mouth, like a cat.

Their hearing and sight are keen. They are fair runners and excellent climbers. They have a body length of about 22 inches, and a tail vertebrae of about 11 inches. They are arboreal and terrestrial in habits, and they are such a feature in the Sierra forests that their protection should engage the attention of our lawmakers.