

tario \$16,305,000; Manitoba \$2,449,000; Saskatchewan \$1,784,000; Alberta \$1,798,000; British Columbia \$16,171,000. The Northwest Territories has been allocated \$535,000 and the Yukon \$303,000.

LIP now in its sixth year, is designed to create jobs during peak times of seasonal unemployment in Canadian communities. This year's program is expected to produce over 20,000 extra jobs during the winter.

The chipmunk

(One of series from Hinterland Who's Who, by the Canadian Wildlife Service.)

Chipmunks are the smallest members of the squirrel family. In Canada and the United States they usually live in or near forest, but some species exist above the timber-line on mountains, or in the semi-desert regions of the western United States where bushes dominate the landscape. They are found as far north as the Yukon and as far south as Mexico; but not on the Arctic tundra, the grasslands of the Great Plains, or in the hot, sub-tropical forests of Florida. Water-logged soils are usually avoided, apparently because they are not good for burrowing.

General appearance

Chipmunks are easily recognized by the light and dark stripes on the back and head. They may be sometimes confused with some of the ground squirrels, which are also striped; but on these larger squirrels, the stripes are confined to the back and do not continue forward onto the head, as they do on chipmunks.

In Canada and the U.S. there are two main kinds of chipmunk: the western chipmunk (*Eutamias*) and the eastern chipmunk (*Tamias*). Both have five dark stripes and four light stripes, but in the eastern chipmunk two of the light stripes on the back are more obvious than, and twice as wide as, any of the other stripes. The fur on the back and sides is coloured in a variety of shades of black, brown, and grey, but on the belly the colour lightens to white or buff.

The eastern chipmunk is large (it weighs slightly less than 100 grams)

with a relatively short tail (about one-third of the total length), while the western chipmunk is smaller (about 50 grams) with a relatively longer tail (nearly half of total length). Eastern chipmunks are between 20 to 28 centimeters long, and western chipmunks are 17 to 25 centimeters long.

Burrows

Chipmunks, which are burrowing animals, construct tunnels and nests beneath the ground. The entrances of their burrows are usually well concealed beneath rocks or tangled brush.

The chipmunk constructs a nest using insulating material such as dried grasses, shredded leaves, or the fluffy seed heads of certain plants. Seeds are stored beneath the nest. It is here that the chipmunk spends the coldest part of the winter, curled up on top of its food supply.

Breeding

Male chipmunks are the first to emerge in the spring and are usually active as soon as patches of bare ground begin to appear through the snow. In Canada, the chipmunk breeding season is April and May, and most of the breeding is accomplished from mid-April to mid-May. Females alone are responsible for rearing the young.

Embryos in the uterus of the female require about 30 days to develop to full term, but this gestation period has never been accurately measured. The usual number of young in one litter is four, five, or six, but litters that are as small as one and as large as eight have been recorded. In Canada, chipmunks have only one litter and one breeding season a year, but in southern United States both eastern and western chipmunks can produce two litters in a single year.

Growth of the young

Young chipmunks, born naked and blind in an underground nest, weigh between two-and-a-half and three grams at birth. Hair does not become visible until about ten days of age. The ears are closed until the twenty-eighth day, and the eyes first open at 32 days of age.

When they are five or six weeks old, the young chipmunks may begin to leave the burrow to forage on the sur-



The chipmunk holds fruits and seeds with its front paws while removing seeds, then shifts them back into thin membraneous cheek pouches. When pouches are full, the animal hides the food beneath its underground nest.

face of the ground. At first they are quite unafraid, but after a few days above ground they are more easily alarmed and escape quickly if disturbed. The young grow rapidly during the late summer and reach adult size before the end of September. Some breed in their first spring, others not until their second year.

Hibernation

Near the end of July, they begin to collect large quantities of seeds and store them below ground. By October, each chipmunk has accumulated between one-half and one pint of seeds. With the aid of this food store, the chipmunk survives the winter.

Unlike ground squirrels, chipmunks do not accumulate body fat during the summer months, although some may do so just before they enter hibernation. Consequently, while many ground squirrels are already hibernating in October, chipmunks are still actively storing food.

In November, chipmunks disappear below ground and hibernation begins.

Importance to man

Through their habit of storing seeds beneath the surface litter, chipmunks are important in the dispersal of seeds. Any such partially buried seeds that are not consumed stand a better chance of germination than those falling on top of surface litter. In this way, chipmunks assist the spread of shrubs, trees, and other seed plants.