

Sylvilagus floridanus

EASTERN COTTONTAIL

ENGLISH NAMES	eastern cottontail, eastern cottontail rabbit
SCIENTIFIC NAME	<i>Sylvilagus floridanus</i>
FAMILY	Leporidae (Hare and rabbit)



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Eastern cottontails are small, brown rabbits with white cottony tails.

RANGE/KNOWN DISTRIBUTION

Eastern cottontails are native to eastern and central North America as far north as the Great Lakes and south into Central America.

Cottontails naturally expanded into Canada around 1870. They were introduced to western Washington in 1927 and again in 1931, and shortly thereafter dispersed to the lower Fraser Valley in British Columbia. In 1964, cottontails were introduced to Sooke on southern Vancouver Island. Cottontails are now common on eastern Vancouver Island from Victoria to Campbell River.

IMPACTS ON GARRY OAK AND ASSOCIATED ECOSYSTEMS

Cottontail herbivory damages plants of Garry oak ecosystems, including oak seedlings and wildflowers including lilies. They can kill mature shrubs and trees by eating all of the inner bark from around the trunk and chewing exposed roots. Cottontail herbivory also threatens plants at risk, including golden paintbrush (*Castilleja levisecta*), yellow montane violet (*Viola praemorsa*) and possibly white-top aster (*Aster curtus* = *Sericocarpus rigidus*). Rabbits can also change the composition of plant communities by over-grazing their preferred species such as plants with higher nutritional content, thus allowing less palatable plants to increase in relative abundance, and by dispersing seed in their faecal pellets.

Before the introduction of eastern cottontails, European rabbits and grey squirrels, very few species of small mammals inhabited island Garry oak ecosystems. These introductions may have caused increases in populations of some native raptors and aided the range extension of barred owls (*Strix varia*) into these areas.

FIELD DESCRIPTION

Eastern cottontails are dark brown, with distinctive red-brown patches between the ears and shoulders. Tails are brown on top, but when

SYLVILAGUS FLORIDANUS

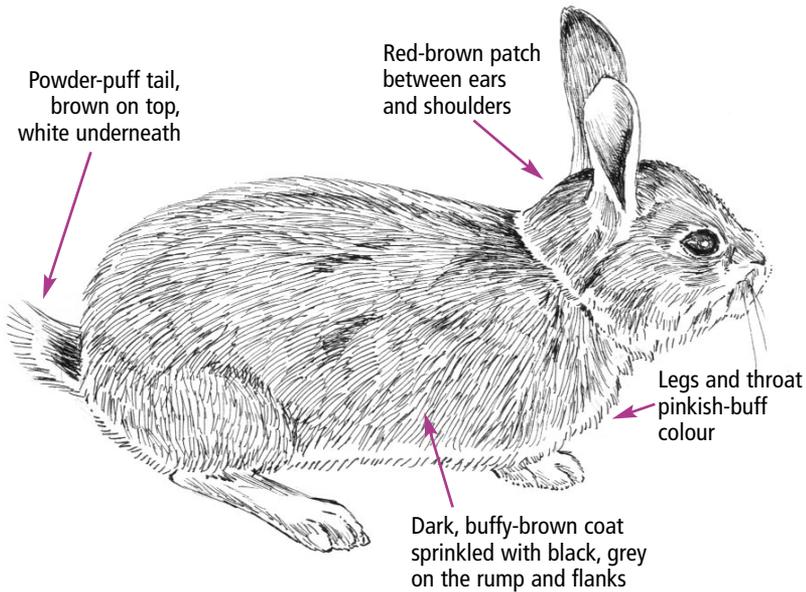


Illustration Credit: © DONALD GUNN

cottontails are running only the white underside is visible. The average length from head to tail is 44 cm.

The only other rabbits that occur on Vancouver Island and other islands with Garry oak ecosystems in Canada are introduced European rabbits (*Oryctolagus cuniculus*) which are larger and have longer ears than eastern cottontails.

Cottontail and rodent browsing can be identified by clean, 45° cuts on twigs; those browsed by deer are 90° across the stem and have frayed edges.

LIFE HISTORY

Eastern cottontails have home ranges up to 2.5 ha in size. They feed most actively in the early morning and after sunset. In summer they eat grasses and herbaceous plants. In winter, when herbaceous plants are unavailable, cottontails browse on bark, twigs and buds of woody plants such as willow (*Salix* spp.), rose (*Rosa* spp.), snowberry (*Symphoricarpos albus*) and oak seedlings.

Breeding occurs from January to September. Nests are shallow, well hidden holes lined with vegetation and fur. Eastern cottontails have 2-4 litters per year, with up to 8 young per litter. Unlike hares, rabbits are born naked. Cottontails are weaned at 4-5 weeks. Cottontails can reproduce when they are 2-3 months old and live an average of 15 months.

Predators include hawks, owls, snakes, crows and feral cats and dogs.

HABITAT

Eastern cottontails prefer patchy habitats with open, grassy areas for foraging interspersed with dense shrub thickets that provide shelter and hiding cover. Suitable habitats include open Garry oak meadows, fields, pastures, grasslands, hedgerows and forest edges.

MANAGEMENT

Develop a long-term, realistic program for invasive species removal before undertaking any work. Before taking action, expert advice should be obtained. Please refer to the introductory section of this manual.

PHYSICAL CONTROL: Rabbits can be excluded from an area by erecting a 1-m high fence with mesh no larger than 5 cm x 5 cm. To be effective, the bottom of the fence must be buried 10-15 cm.

Barriers of metal or plastic netting, mesh or tubing can protect individual plants.

Live box trapping or shooting can reduce populations of eastern cottontails and can be effective for local control. However, if the population is not isolated, rabbits from adjacent areas will quickly repopulate the site. Trapping is most effective during the winter when food is scarce. Live traps are available from hardware stores and can be made more enticing to cottontails by covering them with dark material or scenting them with the urine of domestic rabbits. Trapped rabbits should be humanely euthanised and should not be relocated to other areas where they will cause further problems.

Refer to the introductory pages for information on hunting and trapping invasive species and for humane euthanasia guidelines.

BIOLOGICAL CONTROL: Maintaining habitat for hawks and owls and installing raptor perches can support predator populations that may help control eastern cottontails.

More research is needed on biological control agents such as immuno-contraceptive vaccines.

CHEMICAL CONTROL: Taste and odour repellents are effective but they are expensive, they must be reapplied regularly and their efficacy depends upon the availability of alternate food. Repellents include bone tar oil, fermented eggs, ammonium fatty acid soaps and capiscin (extract from hot peppers).

OTHER TECHNIQUES: Noise frightening devices do not control cottontails.

PREVENTATIVE MEASURES: Removing invasive shrubs such as Scotch broom (*Cytisus scoparius*) and English hawthorn (*Crataegus monogyna*) will likely make the habitat less suitable for cottontails and decrease their numbers. Removing brush piles can also be effective, but this may make the habitat less suitable for some native species of mice, birds, reptiles and invertebrates. Do not assist the spread of rabbits by translocating them.

PERSISTENCE: Cottontails can reproduce very quickly and emigrate long distances to find suitable habitat.

GENERAL COMMENTS

Cottontails host a number of parasites and diseases including tularaemia (rabbit fever), which is infectious to humans. Do not handle sickly rabbits.

Eastern cottontails are listed as “Schedule C” animals under the Wildlife Act, which means they can be captured or killed anywhere in the province and at any time.

REFERENCES

Nagorsen, D.W., 2002. *An Identification Manual to the Small Mammals of British Columbia*. Ministry of Sustainable Resource Management, Ministry of Water, Land and Air Protection, Royal British Columbia Museum, Victoria, BC. wlapwww.gov.bc.ca/wld/pub/pub.htm

Timm, R.M. (ed.), 1986. *Prevention and Control of Wildlife Damage*. Great Plains Agricultural Council Wildlife Resources Committee and Cooperative Extension Service, Institute of Agriculture and Natural Resources, University of Nebraska, Lincoln, NE.

For more information contact the Garry Oak Ecosystems Recovery Team, or see the website at www.goert.ca