

Notes

Eastern Chipmunk, *Tamias striatus*, Attack on a Maritime Garter Snake, *Thamnophis sirtalis pallidulus*, at Cooks Lake, Halifax County, Nova Scotia, Canada

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Sciurids are often seen eating carrion on roads but are rarely seen attacking live prey. We report a rare incident of an Eastern Chipmunk, *Tamias striatus*, attacking (but not eating) a Maritime Garter Snake, *Thamnophis sirtalis pallidulus*, at Cooks Lake, Halifax County, Nova Scotia, Canada, on 29 September 2009 at 1315 h.

Key Words: Eastern Chipmunk, *Tamias striatus*, Maritime Garter Snake, *Thamnophis sirtalis pallidulus*, attack, predation, Cooks Lake, Halifax County, Nova Scotia.

There are five species of tree squirrels and chipmunks native to Nova Scotia (Scott and Hebda 2004): the Eastern Chipmunk (*Tamias striatus*), the Eastern Gray Squirrel (*Sciurus carolinensis*), the Red Squirrel (*Tamiasciurus hudsonicus*), the Northern Flying Squirrel (*Glaucomys sabrinus*), and the Southern Flying

Squirrel (*Glaucomys volans*). Sciurids are often seen eating carrion on roads but are rarely seen attacking live prey (Callahan 1993). Callahan (1993) defines predation by sciurids as the killing and eating of active vertebrates, including conspecifics or other relatively large, mobile prey, by free-living animals. Callahan



FIGURE 1. Eastern Chipmunk (*Tamias striatus*) grasping a Maritime Garter Snake (*Thamnophis sirtalis pallidulus*) behind the head at Cooks Lake, Halifax County, Nova Scotia, on 29 September 2009 at 1315 h.



FIGURE 2. Eastern Chipmunk (*Tamias striatus*) biting a Maritime Garter Snake (*Thamnophis sirtalis pallidulus*) along its trunk at Cooks Lake, Halifax County, Nova Scotia, on 29 September 2009 at 1315 h.

(1993) states that predation excludes killing that appears unrelated to feeding.

D. A. was working on a winter's wood supply in his backyard at Cooks Lake, Cooks Brook area, Halifax County, Nova Scotia (45°00'22.38"N, 63°15'54.49"W), on 29 September 2009 when, at 1315 h, he observed an Eastern Chipmunk with a Maritime Garter Snake, *Thamnophis sirtalis pallidulus*, hanging limp in its mouth. The Eastern Chipmunk brought the Maritime Garter Snake out of the wood pile, grasped it behind the head with its front paws, and obviously bit into its head. D. A. photographed the Eastern Chipmunk with the Maritime Garter Snake in its grasp (Figure 1). The Eastern Chipmunk seemed relaxed as it rested on a piece of firewood, continually biting the Maritime Garter Snake throughout the trunk length (Figure 2). The episode lasted approximately five minutes. The Eastern Chipmunk did not eat the Maritime Garter Snake but left it draped over the firewood and continued foraging in the backyard. The Maritime Garter Snake disappeared from the firewood site overnight. We do not know if the Maritime Garter Snake was alive or fresh dead when the Eastern Chipmunk attacked it.

The Eastern Chipmunk is a small ground-dwelling sciurid of deciduous and mixed forest. This diurnal sciurid will also climb up on shrubs or bushes and even higher while foraging. It is also at home in disturbed habitat such as backyards and gardens. Its diet is varied and includes mostly seeds, fruits, and nuts as well as green vegetation. In summer it eats a host of wild

fruit and berries; in the autumn it switches to nuts (Cameron 1956; Peterson 1966; MacClintock 1970; Banfield 1974; Reid 2006). Its diet also includes slugs, worms, frogs, and salamanders (Banfield 1974). Eastern Chipmunks have been reported killing, but not eating, Northern Redbelly Snakes (*Storeria o. occipitomaculata*) and Garter Snakes (*Thamnophis sirtalis*) (Banfield 1974). Eastern Chipmunks are known to attack other vertebrates such as young birds and bird eggs, but such prey accounts for only a small part of their diet (MacClintock 1970).

Snakes are known predators of Eastern Chipmunks (MacClintock 1970) and the young of other small mammals. There is one report of Maritime Garter Snakes preying on young Meadow Voles (*Microtus pennsylvanicus*) on Little Tancook Island, Mahone Bay, Lunenburg County, Nova Scotia (Gilhen 1984). A mature female Maritime Garter Snake in captivity will eat live young (pinkies and fuzzies) of domesticated House Mice (*Mus musculus*). In June 1956 or 1957 an adult Maritime Garter Snake was observed attacking a young Snowshoe Hare (*Lepus americanus*), at Merrymakedge area, Kejimikujik National Park and Historic Site (personal communication, David Coldwell, 28 February 2011). An adult Maritime Garter Snake would probably be a threat to young Eastern Chipmunks in a ground nest. This example of an Eastern Chipmunk attacking a Maritime Garter Snake at Cooks Lake is possibly more of a defensive behaviour than one of foraging for food.

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