

# First Records of the Rock Vole (*Microtus chrotorrhinus*) and the Gaspé Shrew (*Sorex gaspensis*) from Nova Scotia and a Second Record of the Thompson's Pygmy Shrew (*Microsorex thompsoni*) from Cape Breton Island

A survey of the mammals of Cape Breton Highlands National Park, conducted from July to September 1974, yielded some noteworthy discoveries. Two Gaspé shrews (*Sorex gaspensis*) were captured on 1-2 August along a small stream on South Mountain. Six rock voles (*Microtus chrotorrhinus*) and one Gaspé shrew were collected 17-20 August in the Grande Anse Valley. A Thompson's pygmy shrew (*Microsorex thompsoni*) was trapped on 14 September in the Cheticamp River Valley and on 15-16 September three Gaspé shrews were caught in the same area.

The rock vole and the Gaspé shrew were previously recorded no closer to Cape Breton Island than the mountainous regions of New Brunswick (Banfield,

A. W. F. 1974. The mammals of Canada. University of Toronto Press, Toronto and Buffalo. 438 pp.). The individuals of those species in Nova Scotia are members of an apparently relict population. The only other record for the Thompson's pygmy shrew from Cape Breton Island is of one collected by R. M. Anderson from Ingonish Centre in 1925 (Cameron, Austin W. 1958. Mammals of the islands in the Gulf of St. Lawrence. National Museum of Canada Bulletin 154, Biological Series 53. 165 pp.).

All mammals were collected during 500 trap-nights in each of the areas involved. Museum Special snap traps, spaced in pairs at 10-m intervals along a 500-m transect, were set for 5 consecutive nights. Bait used was a mixture of peanut butter, rolled oats, and

cooking oil.

Two Gaspé shrews were trapped beside a small cool stream on the north side of South Mountain. Speckled alder (*Alnus rugosa*) was common along the stream, and tree species in the canopy included spruces (*Picea* spp.), white birch (*Betula papyrifera*), and balsam fir (*Abies balsamea*), with scattered red maple (*Acer rubrum*), striped maple (*Acer pensylvanicum*), and mountain maple (*Acer spicatum*). Herbs, ferns, and grasses were abundant along the edge of the brook. That is a preferred habitat, as elsewhere the Gaspé shrew has been taken from beneath mossy boulders along swift-flowing stream banks in spruce forests, a habitat similar to that of the water shrew (*Sorex palustris*) (Banfield, *op. cit.*). Other species captured along the stream during the same 500 trap-nights were nine southern red-backed voles (*Clethrionomys gapperi*), eight woodland jumping mice (*Napaeozapus insignis*), five masked shrews (*Sorex cinereus*), and five water shrews.

The rock voles and one Gaspé shrew were captured in a forest of mature sugar maple (*Acer saccharum*) and yellow birch (*Betula alleghaniensis*) along the north-facing slope of the Grande Anse Valley. All six rock voles were caught along a 50-m segment of the transect through that stand. That particular area differed somewhat from the surrounding forest: the canopy was more open, resulting in a larger number of shrub-sized striped maple and sugar maple, and brambles (*Rubus* spp.) and hazelnut (*Corylus cornuta*) were observed. The ground was broken rock, with boulders ranging from 0.5 to 2 m across, and covered with moss and scattered woodfern (*Dryopteris spinulosa*). That habitat is apparently typical for the rock vole. The first rock vole caught was a large female with seven placental scars. The other five animals, three males and two females, were all subadults and possibly from that litter of seven. Other animals trapped during the same 500 trap-nights were 73 southern red-backed voles, 35 masked shrews, 18

deer mice (*Peromyscus maniculatus*), 5 woodland jumping mice, 1 eastern chipmunk (*Tamias striatus*), and 1 short-tailed shrew (*Blarina brevicauda*).

The Thompson's pygmy shrew and three Gaspé shrews were caught in a forest of beech (*Fagus grandifolia*) and sugar maple on the south-facing slope over 300 m from the Cheticamp River, the nearest open water. The trap-line was at the base of a steep rocky hill where the substrate was broken rock covered with a heavy leaf-litter. Ground plants were scarce, woodfern and Christmas fern (*Polystichum acrostichoides*) being the most common. Pygmy shrews apparently prefer grassy areas, so that the area in the Cheticamp Valley would not be considered typical habitat for Thompson's pygmy shrew. The long-tailed shrew (*Sorex dispar*), which is closely related to the Gaspé shrew and is found in the Appalachian Mountains in Maine, inhabits cool, moist, dark, mossy talus rocks. Most specimens have been taken underground in talus slopes beneath rock outcroppings in dense forests (Banfield, *op. cit.*). Obviously the Gaspé shrew in Cape Breton can be found in similar circumstances. As well as the Thompson's pygmy shrew and Gaspé shrews, 1 woodland jumping mouse, 7 deer mice, 23 red-backed voles, and 26 masked shrews were trapped on the south slope of the Cheticamp Valley.

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