

THE LONG-TAILED MEADOW MOUSE

(Microtus longicaudus) IN CANADA^{1, 2}

By R. M. ANDERSON and A. L. RAND

National Museum of Canada

BAILEY (1900, *No. Amer. Fauna*, No. 17, pp. 48-50) listed two species of this group in Canada *M. mordax* and *M. macrurus*. Swarth (1933, *Proc. Biol. Soc. Wash.*, 46, pp. 207-211) suggested that there might be a close relationship between *macrurus* and *tetramerus* of Vancouver Island, but we have already shown (1943, *Can. Field-Nat.* 57, pp. 73-74) that this is not the case and *tetramerus* is really a race of *townsendi*. Racey and Cowan (1936, *Prov. of B. C., Report of the Prov. Mus. for 1935*, p. 26) showed that *macrurus* and *mordax* intergrade in southern British Columbia. Goldman (1938, *Journ. Mammal.*, 19, pp. 491, 492) has brought together the forms that are best grouped in the species *longicaudus*, including *mordax* and *macrurus*. It is a western species, ranging from the southwestern United States through Alberta and British Columbia to Yukon and Alaska.

The species in Canada is characterized by its medium size, relatively long tail, rather sparse, harsh fur, lack of well-developed hip glands, rather flat skull with medium-sized bullae, wide incisive foramina and the second upper molar lacking a posterior loop. Though this species has no well-developed hip glands, occasional specimens of old males show glands of some size.

Of other Canadian forms it most closely approaches *M. townsendi* in the subspecies *M. l. macrurus*; this last differs from *townsendi* in the longer tail, lack of well-developed hip glands, wider incisive foramina, larger, more rounded bullae, and lack of a tendency toward an interior posterior point on the second upper molar.

In color the race *M. l. macrurus* is paler, and slightly greyer than the races *M. t. townsendi*, and *M. t. tetramerus*, and greyer, less brownish than *M. t. laingi* Anderson and Rand (1943).

Hitherto two subspecies have been recognized as occurring in Canada: *mordax* over

most of the Rocky Mountains west to the eastern side of the Cascades; and *macrurus* of the British Columbia coast.

Study of the material in the National Museum of Canada indicates that another form is recognizable from northern and eastern British Columbia, and the possibility of another form in southeastern Alberta. A discussion of these forms follows.

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Microtus longicaudus macrurus Merriam

Microtus macrurus Merriam, 1898, *Proc. Acad. Nat. Sci., Phil.*, p. 353, -Lake Cushman, Olympic Mountains, Washington.

This is a large, brownish-black, dark-coloured form.

Measurements. — Horseshoe Lake to Loughborough Inlet; 5 males, total length 191-202 mm. (av. 197.6); tail 70-81 (av. 77.0); hind foot 21.5-23.5 (av. 22.7); skull, basal length 25.5-26.5 (av. 26.1); zygomatic breadth 15-16 (av. 15.2); Dean Channel and King Island, average 5 males; 211; 81.4; 23.4; 27.1; 16; Hagensborg, average 4 males, 199; 73.8; 23.2; 26.1; 15.6; Mt. Brilliant, 5000 + ft., average 5 males, 184.6; 66.2; 21.8; 25.6; 14.9.

Range. — Olympic Mountains, Washington, and along the British Columbia coast from the Fraser River to at least Dean Channel; inland to Alta Lake and Hagensborg, Stuie and Mt. Brilliant, Rainbow Mountains.

Remarks. — There is little variation in our material from along the coast. The three specimens from Washington (Clallam and Pierce Counties) without skulls, are indistinguishable from our British Columbia material. Racey and Cowan (1936, *Report of the Provincial Museum, British Columbia*, for

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