

Melanistic Tundra Voles, *Microtus oeconomus*, from Central Yukon

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Jung, Thomas S., David W. Nagorsen, and Lea A. Randall. 2009. Melanistic Tundra Voles, *Microtus oeconomus*, from central Yukon. *Canadian Field-Naturalist* 123(2): 171–172.

Colour aberrations are not commonly observed in voles (e.g., *Microtus* and *Myodes*); thus, individual observations are of interest. We report two observations of melanism in Tundra Voles, *Microtus oeconomus*, collected from central Yukon. These are the second and third records of melanistic Tundra Voles, and the first reports from non-insular populations.

Key Words: Tundra Vole, *Microtus oeconomus*, colour aberrations, melanism, Yukon.

Colour aberrations of voles are rarely observed; hence, individual observations are of interest (e.g., Owen and Shackelford 1942; Jewett 1955; Bowman and Curran 2000; Whitman 2009). Deviations from the normal agouti colouration of *Microtus* voles range from albinism to melanism, and include several intermediate variations (e.g., leucism, xanthochroism; Owen and Shackelford 1942; Pinter and Negus 1971; Stalling 1974). Here, we report two observations of rare aberrant coat colouration in free-ranging Tundra Voles (*Microtus oeconomus*) from central Yukon, Canada.

On 9 July 2005, we captured a melanistic Tundra Vole on Mount Turner (65.41°N, 136.28°W), approximately 212 km northeast of Dawson City, Yukon. The specimen was captured in a Museum Special trap (Woodstream Corp., Littiz, Pennsylvania, USA) and identified using morphological and dental characteristics. Overall, the fur of the vole was shiny black, rather than the greyish brown to yellowish brown of normally pigmented individuals, although the underparts and hair on the feet were slightly duller. The tail

did not appear bicoloured and the ears were also black. The vole, an adult female, was taken in a wet alpine creek bordered by a dense stand of willows (*Salix* spp.) and an understory dominated by *Equisitum* (horsetail). The specimen has been deposited at the Museum of Southwestern Biology (Field I.D.: NSY-005).

Using the ARCTOS database, we searched the collections of the University of Alaska Museum of the North (UAM; Fairbanks, Alaska) and the Museum of Southwestern Biology (MSB; Albuquerque, New Mexico) for Tundra Voles. A total of 7550 Tundra Vole specimens was located in the collections (5626 at UAM and 1924 at MSB), one of which was noted to be melanistic. On 15 July 1984, a melanistic adult male Tundra Vole (UAM 15762) was collected on Trapper Mountain (64.58°N, 138.22°W) in Tombstone Territorial Park, approximately 82 km northeast of Dawson City, Yukon. The skin of this vole was examined in the UAM collections and it was confirmed that it was uniformly black (B. Jacobsen, personal communication). This specimen was collected about 130 km

southwest of our specimen. No other species in the UAM collection were melanistic (B. Jacobsen, personal communication).

Several melanistic voles have been reported in the literature, specifically Meadow Vole, *Microtus pennsylvanicus* (Blossom 1942; Owen and Shackelford 1942); Common Vole, *Microtus arvalis* (Kocian and Ziak 1992); Montane Vole, *Microtus montanus* (Jewett 1955); and Prairie Vole, *Microtus ochrogaster* (Mumford 1964). Murie (1934) reported the only previously recorded melanistic Tundra Vole, from St. Lawrence Island, Alaska. He noted that there were local areas on the island where Aboriginal People indicated one could find other melanistic specimens, suggesting that some colonies had a propensity to produce melanistic individuals. Coat colour mutations have been noted in insular populations of free-ranging Meadow Voles (Parsons and Bondrup-Nielsen 1995), in captive populations of Montane Voles and Prairie Voles (Pinter and Negus 1971), and coat colour mutations may also occur in Tundra Voles (*sensu* Murie 1934). We are unaware of any occurrences of melanism in Tundra Voles other than that reported by Murie (1934). Thus, the two Yukon specimens constitute the second and third records of melanism in *Microtus oeconomus* and the first specimens from non-insular populations.

Acknowledgements

We are grateful to the many individuals who helped us collect and process small mammals from central Yukon in 2005. Gordon Jarrell collected UAM 15762. Brandy Jacobsen (UAM Collections Manager) kindly examined UAM 15762 and provided information on this and other Tundra Voles in the UAM collection.

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Received 26 March 2009

Accepted 18 February 2010