New record of Kashmir Birch Mouse *Sicista concolor leathemi* (Thomas, 1893) (Rodentia: Sminthidae) in the Indian Himalaya

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Birch mice are grouped under the monotypic genus *Sicista* Gray, 1827 with 14 recognized species currently distributed over the Palearctic realm (Holden et al. 2017). The genus was earlier variably placed under the families Dipodidae of subfamily Sicistinae (Ellerman 1961; Ellerman & Morrison-Scott 1966; Holden & Musser 2005) and Zapodidae (Corbet & Hill 1992) but at present it is accommodated under the family Sminthidae of superfamily Dipodoidea (Holden et al. 2017). The Chinese Birch Mouse *Sicista concolor* Buchner, 1892 is a montane species with three fragmented populations reported so far, the nominate subspecies *S. c. concolor* Buchner, 1892 reported from northcentral China, *S. c. leathemi* (Thomas, 1893) including *Sicista concolor flavus* (True, 1894) from India (Jammu & Kashmir, Ladakh), western China (southwestern Xinjiang), & northern Pakistan (Kaghan valley), and *S. c. weigoldi* Jacobi, 1923 from southcentral China (Holden et al. 2017).

The Kashmir Birch Mouse is found in the alpine and sub-alpine scrub zones in the Himalaya and grassy slopes of moist montane forests at elevations of 2,140–4,000 m. It undergoes prolonged hibernation in winter and digs its own underground burrows. It is nocturnal, fossorial, in habit, and feeds on berries, wild fruits, seeds, fungi, and insects. Little is known about its breeding; it is reported to produce a single litter of 3–6 young annually (Roberts 1997).

It has a longer obscurely bicolored tail that averages over 160% of the head-&-body length, with short hairs throughout the length. The dorsum varies from rufous-brown and greyish-brown to yellowish-brown with conspicuous black guard hairs on back; there is no dark mid-dorsal stripe on the back. The fur of the body is thick and soft; greyish-white (white with gray base) venter without clear demarcation from the dorsum. Ears are short, rounded, thickly clothed with short chocolate brown hairs. Hind feet are long and narrow, about 22–28% of head and body length, lighter than the back, silvery white on upper surface, without plantar pads. Due to overlapping characters, the subspecies *flavus* was synonymized under *S. c. leathami* (Holden et al. 2017).

During one faunistic survey in the grasslands of Lahaul Valley of Himachal Pradesh between 16–29 August 2021, we had an opportunity to closely observe and photograph (Image 1, 2) a live small-sized mouse
with distinctly longer and faintly bicolored tail in an area between Gramphu and Chhatru in Lahaul valley (32.373N & 77.291E; 3,220m) on 27 August 2021. The landscape was typical trans-Himalayan terrain with very dry stony and sandy habitat interspersed with grassy clumps. The mouse was observed foraging around grassy growths at about 1330 h with temperature and humidity at 22.8°C and 23%, respectively. Being a reportedly nocturnal species, its apparent day time foraging is intriguing. The animal was quite docile and could be comfortably handled and released thereafter. On the basis of the key morphological characters mentioned in the literature (Ellerman 1961; Roberts 1997; Holden et al. 2017) the animal in the photographs (Image 1, 2) was identified as the Kashmir Birch Mouse Sicista concolor leathemi.

A few scattered literatures are available on the records of rodent fauna from Himachal Pradesh (Lindsay 1926; Chakraborty et al. 2005; Sharma et al. 2008; Sharma & Saikia 2009, 2013), however, none of them mention the occurrence of the Kashmir Birch Mouse in Himachal Pradesh. Therefore, on the basis of photographic evidence, we hereby report this rodent species for the first time from Himachal Pradesh. The present locality is also recorded the southernmost point in its distribution range.

The type locality of S. c. leathemi is Krishnye valley, Wardwan (=Warwan), in Kishhtwar district of the union territory of Jammu & Kashmir and of S. c. flavus is central Kashmir (c. 3,305 m). The leathemi population is also reported from other localities of Kashmir like Chilas, Nanga Parbat, Astore (Gilgit-Baltistan), Rupal (Kupwara), Malangan, Kagnarg mountains, and Ladakh (Ellerman 1961; Chakraborty 1983; Molur et al. 2005) (Figure 1).

Ellerman & Morrison-Scott (1966) and Ellerman (1961) listed both leathemi and flavus as subspecies of Sicista concolor. However, Corbet & Hill (1992), Holden (1993), Holden & Musser (2005) synonymized both the taxa with the S. concolor. Further, Holden et al. (2017) treated flavus as junior synonym of S. c. leathemi. As per the IUCN Red List of Threatened Species, the global status of the species is ‘Least Concern’ due to its wide distribution and the lack of known threats (Molur 2016). However, for India S. c. leathemi is categorized as Near Threatened by Molur et al. (2005), which requires revalidation.

References

Chakraborty, S. (1983). Contribution to the knowledge of the mammalian fauna of Jammu and Kashmir, India. Records of the Zoological Survey of India, Occasional Paper No. 38: 1–129.

Chakraborty, S., H.S. Mehta & S. Pratihar (2005). Mammals, pp. 339–359. In: Fauna of Western Himalaya (Part-2)-Himalach Pradesh. Zoological Survey of India, Kolkata.

Corbet, G.B. & J.E. Hill (1992). The Mammals of the Indomalayan Region: A Systematic Review. Natural History Museum Publications and Oxford University Press, Oxford, U.K., 488pp.

Ellerman, J.R. (1961). The Fauna of India including Pakistan, Burma and Ceylon. Mammalia. Vol. 3 (Rodentia), Part I & II. Govt. of India, Delhi, 884pp.

Ellerman, J.R. & T.C.S. Morrison-Scott (1966). Checklist of Palaearctic Rodentia. 2nd ed. C.U.P., Cambridge, U.K., 133pp.

Figure 1. Showing distribution of Kashmir Birch Mouse Sicista concolor leathemi (Thomas, 1893).
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Image 1–2. Kashmir Birch Mouse *Sicista concolor leathemi* (Thomas, 1893) sighted in the grasslands of Lahaul Valley of Himachal Pradesh. © Avtar Kaur Sidhu.
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Holden, M.E. (1993). Family Dipodidae, pp. 487–500. In: Wilson, D.E. & D.M. Reeder (eds.). Mammal Species of the World: A Taxonomic and Geographic Reference. Smithsonian Institution Press, Washington DC, USA.

Holden, M.E., T. Cserkesz & G.M. Musser (2017). Family Sminthidae (Birch Mice), pp. 22–48. In: Wilson, D.E., T.E. Lacher Jr. & R.A. Mittermeier (eds.). Handbook of the Mammals of the World. Vol. 7. Rodents II. Lynx Edicions, Barcelona.

Holden, M.E. & G.G. Musser (2005). Family Dipodidae, pp. 871–893. In: Wilson, D.E. & D.M. Reeder (eds.). Mammal Species of the World: A Taxonomic and Geographic Reference. Smithsonian Institution Press, Washington DC, USA.

Lindsay, H.M. (1926). Bombay Natural History Society’s Mammal Survey of India, Burma and Ceylon. Report No. 44. Kangra and Chamba. Journal of the Bombay Natural History Society 31: 597–606.

Molur, S. (2016). Sicista concolor (errata version published in 2017). The IUCN Red List of Threatened Species 2016: e.T20188A115157138. Downloaded on 08 October 2021. https://doi.org/10.2305/IUCN. UK.2016-3.RLTS.T20188A22204686.en

Molur, S., C. Srinivasulu, B. Srinivasulu, S. Walker, P.O. Nameer & L. Ravikumar (2005). Status of South Asian Non-Volant Small Mammals: Conservation Assessment and Management Plan (C.A.M.P) Workshop Report. Zoo Outreach Organization, CBSG South Asia, Coimbatore, India, 618 pp.

Roberts, T.J. (1997). The Mammals of Pakistan. Oxford University Press, Oxford, 525 pp.

Sharma, D.K. & U. Saikia (2009). Mammalia, pp. 103–118. In: Faunal Diversity of Simbalbara Wildlife Sanctuary, Conservation Area Series, 41. Zoological Survey of India, Kolkata.

Sharma, I. & U. Saikia (2013). Mammalia, pp. 107–120. In: Faunal Diversity of Pangi Valley, Chamba District. (Himalach Pradesh), Himalayan Ecosystem Series, 3. Zoological Survey of India, Kolkata.

Sharma, D.K., P.C. Tak & U. Saikia (2008). Mammalia, pp. 137–147. In: Fauna of Pin Valley National Park, Conservation Area Series, 34. Zoological Survey of India, Kolkata.
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