



Record of melanistic Five-striped Squirrel from Vadodara, Gujarat

(© Bhavesh Trivedi)

Northern Palm Squirrel or Five-striped squirrel, *Funambulus pennantii* Wroughton 1905 is a non-volant non-endemic to South Asia and listed as Least Concern in IUCN Red List (Molur et al. 2005). Northern palm squirrel *F. pennantii* shares several niche occupied by Three-striped Palm Squirrel *Funambulus palmarum* (Linnaeus, 1766). Photographs and literatures indicate *F. pennantii* as slender-bodied, brownish-grey dorsum with five pale colored stripes from head to tail. The tail is long, does not have a mid-ventral line, and resembles a grey bottlebrush (Menon 2014). The Northern palm squirrel is diurnal, adapted to living close to human settlements (Menon 2014). It is located all over northern India, South to Dharwad (Karnataka), and east to Meghalaya (Prater 1971, Menon 2014, Pradhan and Talmale 2012). Commonly found in urban, rural and forested areas.

Recently, a black Northern Palm Squirrel *Funambulus pennantii* was spotted foraging

on the edge of an agricultural field near Bhayli Village of Vadodara District, Gujarat. Visual observations and photographic documentation were made from 24 May 2020 till 29 May 2020 in the same locality (22.28666°N & 73.12528°E). During afternoon, the squirrel was spotted resting on the canopy of the Sevan Tree *Gmelina arborea*. A similar observation was made on 30 August 2009 from Ganpatpura Village of Padra, Vadodara District (22.26805°N & 73.07583°E). The squirrel was identified as a melanistic NPS based on visible characters such as body was completely black with black coloured eyes. Hence, it appears to be a case of melanism (Tutt 1891).

Melanism is an ubiquitous phenomenon in the animal kingdom (Tutt, 1891). Melanism is a development of the dark coloured pigment called melanin in the skin and is the opposite of leucism. Of the 17 cases of colour aberrations reported under Sciuridae in a review on colour aberrant mammals



(Mahabal et al. 2019), Jayashankar (2019) reported one case of melanistic Three-striped Palm Squirrel from Bengaluru's rural district, Karnataka while nine cases of leucism in NPS have been reported from Kutch, Gujarat (Newnham 1886), Kolkata, West Bengal (Agrawal & Chakraborty 1979), Chandigarh (Chaturvedi & Ghose 1984), Udaipur City, Rajasthan (Sharma 2004), Sindhudurg District, Maharashtra (Mahabal et al. 2005), Northern Udaipur, Rajasthan (Mehra et al. 2007, 2010), Satara District, Maharashtra (Sayyed & Mahabal 2016), Ghazipur District, Uttar Pradesh (Yadav 2019), and recently from Dehradun (Kamalakaran et al. 2019).

Leucism is often referred as patchy albinism and is commonly observed in mammals, birds, reptiles and amphibians. Albinism is a genetic muddle leading to absolute or fractional absence of pigment in skin, hair and eyes (Lyons et al. 2005). So far, there is no record of melanism reported in NPS from the Gujarat State. Thus, the present instance of melanistic NPS from Bhayli and Padra villages could be the first report for the Gujarat State.

Colour abnormalities are very rare in wild mammals. Besides, it has to be noted that the survival rate of such color aberrant animal is comparatively lesser than the normal ones because of their distinctive features which can be easily noticed by predators.

References

Agrawal, V.C. & S. Chakraborty (1979). Catalogue of mammals in the Zoological Survey of India. Rodentia-Part 1. Sciuridae. *Records of Zoological Survey of India* 74(4): 333-481.

Chaturvedi, Y. & A.K. Ghose (1984). A case of albinism in the Five-striped Palm Squirrel *Funambulus*

pennanti Wroughton. *Bulletin of Zoological Survey of India* 6(1-3): 321-322.

Jayashankar, M. (2019). Sighting of melanistic squirrel in Bengaluru Rural District, Karnataka. *Small Mammal Mail* #422, *Zoo's Print* 34(9): 06-07.

Kamalakaran, M., K. Chandra & C. Venkatraman (2019). A leucistic Northern Palm Squirrel from Dehradun, India. *Small Mammal Mail* #424, In: *Zoo's Print* 34(11): 29-31.

Mahabal, A., R.M. Sharma & M.S. Pradhan (2005). A case of total albinism in the Five-striped Palm Squirrel *Funambulus pennanti* Wroughton in Sindhudurg District, Maharashtra State. *Journal of the Bombay Natural History Society* 102(1): 98-99.

Mahabal, A, R.M. Sharma, R.N. Patil & S. Jadhav (2019). Colour aberration in Indian mammals: a review from 1886 to 2017. *Journal of Threatened Taxa* 11(6): 13690-13719. <https://doi.org/10.11609/jott.3843.11.6.13690-13719>

Mehra, S.P., N.S. Kharwar & P. Singh (2010). Field Notes on albinism in Five-striped Palm Squirrel *Funambulus pennanti* Wroughton from Udaipur, Rajasthan, India. *Small Mammal Mail* 2(1): 18.

Samson, A.B. Ramakrishnan & S. Bargavi (2017). Leucism in the Three-striped Palm Squirrel *Funambulus palmarum* at Gudalur Forest Division, Tamil Nadu, Southern India. *Therya* 8(3): 261-262.

Sayyed, A. & A. Mahabal (2016). First record of leucism in Five-striped Palm Squirrel *Funambulus pennantii* (Rodentia: Sciuridae) from India. *Small Mammal Mail* 8(1): 8.

Tutt, J.W. (1891). Melanism and Melanochroism in British Lepidoptera, Swan Sonnenschein.

Rana Karan¹, Upadhyay Kartik² & Sidat Azaz³

¹Academic Associate, Department of Biomedical and Lifesciences, School of Science, Navrachana University, Vadodara, Gujarat 391410, India. Email: karandinblue@gmail.com

²Wildlife Ecologist, 1/101 Avni Residency Bh Bansal Super Mall, Gotri Vasana Road, Vadodara, Gujarat 390012, India. Email: kartik_upadhyay35@yahoo.com

³Research Scholar, Department of Environmental Studies, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat 390002, India. Email: sidatazaz@gmail.com (corresponding author)

Citation: Karan, R., U. Kartik & S. Azaz (2020). Record of melanistic Five-striped Squirrel from Vadodara, Gujarat. *Small Mammal Mail* #430, In: *Zoo's Print* 35(11): 01-02.