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The Woolly Gliding Squirrel *Eupetaurus cinereus*, first described by Thomas (1888), is one of the rarest, least known and most endangered mammals of the world (Zahler & Woods 1997; Zahler 2010) and constitutes one of the four endemic species of mammals occurring in Pakistan (Sheikh & Molur 2004). The species was thought to be extinct until 1994 when Zahler (1996) rediscovered it in Sai Valley of Diamer District in the Hindu Kush mountain range of northern Pakistan. Prior to this rediscovery almost all previous information was restricted to 11 museum specimens, mostly collected from Pakistan (Roberts 1997; Zahler & Woods 1997). A number of unique characteristics and adaptations separate the woolly flying squirrel from other sympatric species, with the Kashmir Gliding Squirrel *Eoglaucomys fimbriatus* and Red Giant Gliding Squirrel *Petaurista petaurista* with which it coexists in parts of the remote and rugged terrain of northern Pakistan (Zahler 1996; Zahler & Khan 1999). The core distribution range of *E. cinereus* in Pakistan as described by Zahler & Wood (1997) falls in Diamer and Gilgit districts of Gilgit-Baltistan, but it is expected that the species may also occur in some parts of Astore, Skardu, Hunza Nagar, Ghizer, and Chitral districts of northern Pakistan, Azad Jammu & Kashmir and may be in China

NOTE ON THE GIANT WOOLLY GLIDING SQUIRREL *EUPETAURUS CINEREUS* (MAMMALIA: RODENTIA: SCIURIDAE) IN NORTHERN PAKISTAN

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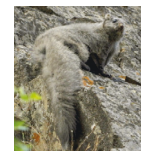
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and India (Roberts 1997; Mirza 2003). Genetic analysis of 10 museum specimens of *Eupetaurus* differentiated two distinct species—to the west (Pakistan-Kashmir-Tibet) and east (Sikkim-Tibet) of the Himalaya (Yu et al. 2004)—though recent evidence supporting the presence of this species outside Pakistan is lacking (Zahler 2010). Recently, the species was reported from the Himalaya directly adjacent to the Hindu Kush including Fairy Meadow Valley in Diamer District (Dinets 2011) and Shounthar Valley in Neelum District, Azad Jammu and Kashmir (Qamar et al. 2012). Local salajit collectors (see below) and community wildlife guards report sightings



Eupetaurus cinereus
Woolly Gliding Squirrel

NOT EVALUATED	DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	VULNERABLE	ENDANGERED	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
NE	DD	LC	NT	VU	EN	CR	EW	EX



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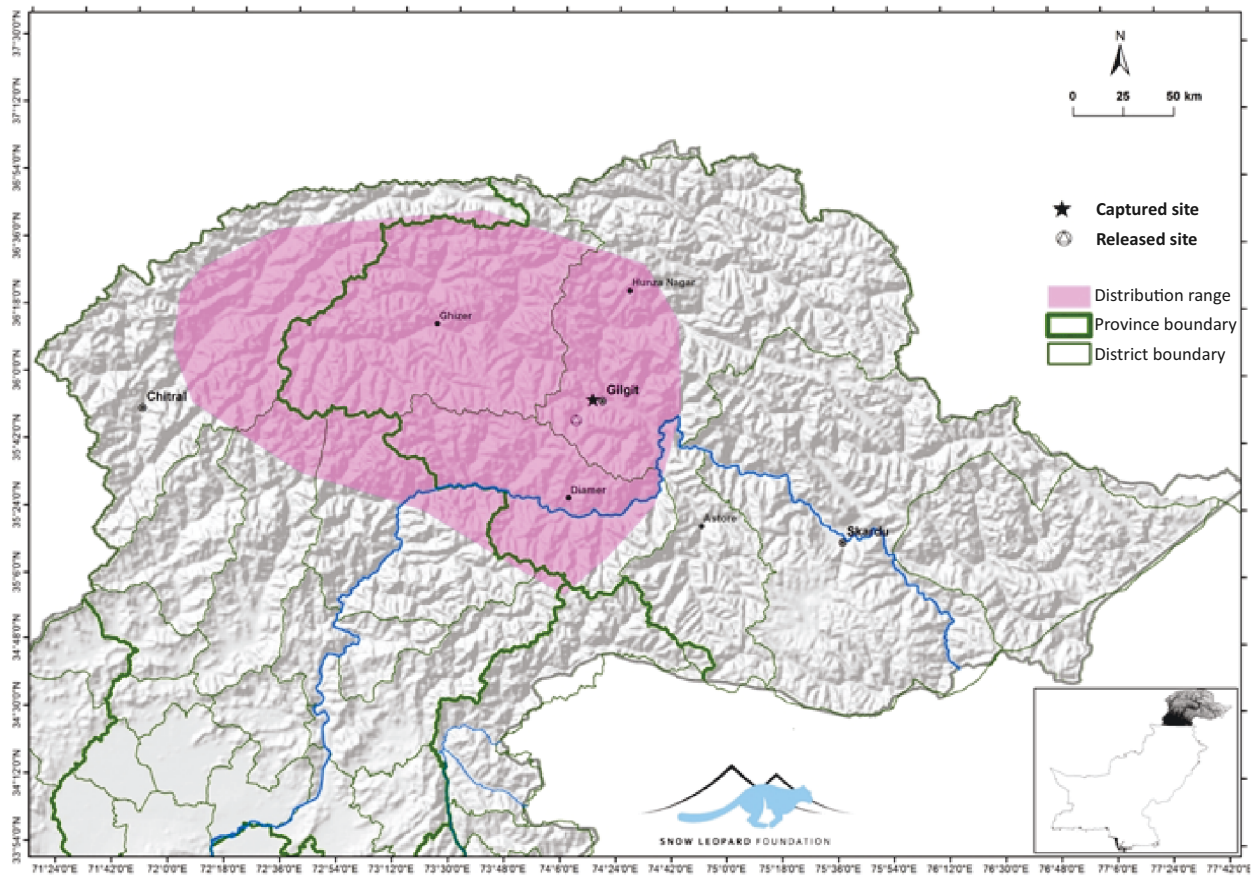


Figure 1. Approximate distribution range map of Woolly Gliding Squirrel showing the recent capture and release sites.

of the Woolly Gliding Squirrel from the valleys of Diamer and Gilgit districts on occasion, but these lack visual confirmation (WCS 2010-14).

The current report is a result of a rare encounter with the Woolly Gliding Squirrel captured in the heart of Gilgit City along the Gilgit River (Fig. 1). The animal was captured on 07 June 2014 at 21.00hr by a local and handed over to an official of the Gilgit-Baltistan Parks and Wildlife Department. The next day a team of professionals from the Snow Leopard Foundation, Wildlife Conservation Society, and Parks and Wildlife Department identified the squirrel, took measurements, collected a sample for DNA analysis, and weighed it before releasing the animal in its natural habitat in Napura-Basin Valley and Markhor Conservancy, Kargah. The squirrel was fed with pine needles during captivity, considered to be the main diet of the animal based on fecal analyses (Zahler & Khan 2003). The rescued animal was identified as an adult male weighing 1.47kg. Total body length was measured to be 81.3cm with tail measuring 45.7cm (Image 1). These measurements were similar to those reported by Zahler & Woods (1997) and Qamar et al. (2012) (Table



Image 1. Woolly Gliding Squirrel upon release in Kargah Markhor Conservancy, June 2014.

1). Jutial and Kargah valleys are considered potential habitat of the WGS (Zahler 1996; Zahler & Wood 1997) and are about 4 and 6 km from Gilgit Town, respectively. These valleys are in the Hindu Kush mountain range with high cliffs and steep and broken peaks with patches of

Table 1. Comparison of the Woolly Gliding Squirrel reported in this paper with earlier specimens

Specimens	Sex	Total length (cm)	Tail length (cm)	Weight (kg)
Zahler specimen 1*	Male	91	45	1.99
Zahler specimen 2*	Male	92	47	1.42
Zahler specimen 3*	Male	85	43	1.65
Qamar et al. specimen**	Male	83	-	1.5
Our specimen	Male	81.3	45.7	1.47

*Figures taken from Zahler & Wood (1997)

**Figures taken from Qamar et al. (2012)

forest dominated by pine, spruce, fir, juniper, ash and birch on slopes, thus providing both shelter and food for the WGS (WCS & PWD-GB 2013). However, the animal would have had to cross roads and congested human settlements to reach the city if it came from one of the two valleys. It is, however, also possible that the animal was captured by salajit collectors to be sold in the black market. Salajit is a substance considered to have great medicinal value that fetches a high price in local markets, and it is found in the crevices of high mountain cliffs. The WGS is not only reported to reside in the caves where salajit is deposited, but it is also perceived to produce it (Zahler & Karim 1998). It is likely that the animal either escaped or was released by the unknown person due to the enhanced conservation and protection measures undertaken by government and non-government organizations. The animal was safely released in its natural habitat in Markhor Conservancy Kargah (then Wildlife Sanctuary) on 08 June 2014 at 18.00hr. A video of the animal climbing trees and then disappearing in the mountains was also recorded for documentation.

The population of the species in Pakistan is estimated at 1000–3000 individuals (Zahler & Woods 1997). Deforestation, habitat degradation due to overgrazing, and salajit collection (Qamar et al. 2012) are considered to be the main threats to the species (Roberts 1997). Zahler (2010) projected that the population may decline by 20% in five years. However, deforestation has been checked in Gilgit-Baltistan to a considerable level in the recent past due to the community based conservation initiatives spread across 65 valleys and increased surveillance system with more than 100 rangers stationed in the valleys (WCS & PWD-GB 2013). It is difficult to indicate the status of the species since we do not have reliable estimates of the current population or

occupancy across its potential habitat. Expansion of the community managed protected area network coupled with increased law enforcement aimed at both hunting and deforestation may help reverse the projected trend. To define the distribution range and evaluate the effect of the ongoing conservation measures, we recommend that systematic site occupancy surveys (Mackenzie et al. 2002) should be conducted across the potential habitat of this elusive species that may be endemic to Pakistan.

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