Snakes are the most reviled of vertebrates, widely perceived by the public as dangerous and harmful. The 2,700 species of snakes known to science include 375–400 venomous species, of which approximately 200 species are considered life-threatening to man and other animals. Snakes of the families Elapidae, Crotalidae, and Viperidae are venomous (Durand 2004; Vidal et al. 2009).

Russell’s Viper is named as *Daboia russelii* in honor of Patrick Russell (1726–1825). *Daboia russelii* is an infamous venomous snake of the Old World, found in Bangladesh, Cambodia, China, Indonesia, Myanmar, Nepal, Pakistan, Sri Lanka, Taiwan, and Thailand (McDiarmid et al. 1999). In Pakistan it occurs from the Indus Valley to the Kashmir, and east to Bengal. This snake is frequently found in Thatta District, Sindh, and at low elevations in Punjab, but no published report is yet available from the northwestern parts of Pakistan.

Relatively few studies have been conducted on the fauna of Swat, and even fewer studies are associated with the reptilian fauna of the region (Smith 1943; Minton 1962, 1965; Mertens 1969, 1970; Khan 1982, 1984, 1985). More than fifty species of terrestrial snakes are known from Pakistan (Khan 1980, 1982, 1997). Khan (2002) conducted an extensive survey of different climatic zones in Pakistan for herpetofaunal diversity. The present study reports the existence of Russell’s Vipers in the hilly areas of Swat Valley, Pakistan.

Village council Miandam is located at 35°03’12”N, 72°33’39”E, about 57 km from Saidu Sharif, District Swat, Khyber Pakhtunkhwa, at an elevation of approximately 1,918 m asl. The study area (Fig. 1) falls under moist temperate forest, thus receiving summer monsoon and winter snow fall. Because of its cool climate and green hillsides, the area is frequented by tourists (Forest Working Plan 2013).

In village council Miandam, there are two sub-villages, namely Gujjar village and Swati village. Four sites of the Gujjar village were surveyed from June to September in 2016 and 2017 (Fig. 2). The snake specimens (Table 1) were either collected dead following their attack by the local people, or recorded with visual observations using the method of Campbell and Christian (1982).

The photographs of specimens shown here (Fig. 3) were taken using a Nikon Coolpex L330 camera. Morphometric analysis of the snake specimens collected dead were recorded using a digital caliper (Precision 145). The specimens observed were identified with the help of keys provided by Khan (2002). The general characteristics of *Daboia russelii* specimens from the four localities of Gujjar village Miandam, Swat (2016–2017) are as follows:
Fig. 1. Map of Khyber Pakhtunkhwa, red circle shows the study area in the District Swat within the province.

Table 1. Records of the seven specimens observed by month and village.

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Daboia russelii in northwestern Pakistan

A B C D

borders and edge creamy, these spots fused to a greater or lesser extent, lateral series of similar but smaller spots below which are scattered dark flecks with light edges.

- Two large dark spots at base of head.
- A light V-shaped mark with its apex on top of snout.
- Labial V-shaped mark with its apex on top of snout.
- Belly whitish with black semilunar spots.
- Chin or throat white.
- Many scales topped with black.

The fauna and flora of Pakistan is Oriental, Palearctic, Ethiopian, and Central Asian in nature, with many endemic forms (Smith 1931; Khan 1980). In Pakistan the complex of habitats is diverse, including oceans, swamps, rivers, lakes, flood plains, arid plains, sand and rocky deserts; tropical thorn, tropical dry deciduous, subtropical dry, subtropical arid, subtropical pine, dry and moist temperate subalpine forests; grassy tundra and cold deserts. Moreover, most of the habitats are now heavily influenced by anthropogenic activities which negatively affect the fauna and flora of the country (Baig 1975).

The present study describes seven specimens of Daboia russelii in Gujjar village Miandam, Swat, KP, Pakistan. (A) Karoo, 35º3’32”N 72º33’11”E; (B) Kaalandori, 35º3’31”N 72º32’21”E; (C) Chhar 35º3’34”N 72º33’12”E; (D) Doop, 35º3’23”N 72º32’58”E.
Russell’s Vipers from four localities in the study area, including two specimens each from Dhoop, Chhar, and Karoo, and one specimen from Kalandori Gujjar Village Miandam, Swat, Pakistan. Russell’s Viper is one of the most widespread of Asiatic venomous snakes. While surveying the literature no published records for this species are available in Swat Valley, Pakistan. Therefore, the present study documents the presence of this species in the hilly areas of Swat Valley.

**Literature Cited**


Khan MS. 1985. *An Interesting Collection of Amphibians and Reptiles from Cholistan Division*. Bulletin Number 5. Botany Department, Pakistan Forest

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**Fig. 3.** Photos of the dead *Daboia russelli* specimens from Gujjar village Miandam, Swat, KP, Pakistan. (A, B) Dorsal views, (C, D) Fangs, (E) Black spots on ventral side, (F) Anal orifice with tail showing a zip-like structure.
Daboia russelii in northwestern Pakistan


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