

Short Communication

New report from presence and distribution of *Allactaga firouzi* in Iran

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The Iranian jerboa *Allactaga firouzi* (Womochel, 1978) is one of the rarest rodent species in the world and it has been reported exclusively from a single site in central Iran. Due to the lack of enough information on the ecology of this species, its conservation status was changed to "Data Deficient" category in late 2008. No additional data on *A. firouzi* was published since its first description by Womochel. Here we report the results of recent intensive survey work in south of Shah-Reza city that yielded several new localities for this species. New localities of *A. firouzi* were identified.

Key words: *Allactaga firouzi*, Iran, Shah-Reza, data deficient.

INTRODUCTION

Iran is located in the Palearctic realm and is considered the center of origin for many of the world's genetic resources. Although, the country's natural resources have been carelessly exploited over the past, environmental deterioration has increased markedly in the past few decades (Fisher, 1968). Little information about the current distribution of the Iranian jerboa *Allactaga firouzi* has been available and published since the first initial survey by D. R. Womochel (1978). The Iranian jerboa is one of the 13 species of *Allactaga* genus the subfamily *Allactaginae*. This species as an endemic Iranian mammal recorded for the first time south of Shah-Reza in Isfahan Province. The IUCN/SSC classifies the species as 'data deficient' (IUCN, 2009). This species is active from 11:00 pm to 5:30 am in early spring to late summer but in midsummer, its activity times are restricted to 9:00 pm to 4:00 am (Naderi et al., 2009). The first collections of Iranian jerboas were made by the W. S. and J. K. Street expedition to Iran in 1968 (Womochel, 1978). No additional data on *A. firouzi* was published since first description. He pointed out populations

restricted to a village 18 miles south of Shah-Reza. We found specimens after three-decade collection gap near the Mirabad village in 22 km Shah-Reza to Abadeh highway (31° 56' 02" N, 52° 02' 05" E; 2198 m) (Figure 1). Current knowledge of the distribution of *A. firouzi* shows that, the species inhabits unique habitats in Iran (Figure 2). We report the results of a recent intensive survey south of Shah-Reza that yielded several new localities for the species.

EXPERIMENTAL PROCEDURES

Field surveys were done in typical habitat of semi-arid grazed steppe (surface covered by bare soil and/or scarce shrub and grass vegetation) from April 2008 to May 2009. The weather is markedly seasonal with a dry season between May and September (<10% of the annual precipitation). Vegetation types comprise different shrubs such as *Anabasis aphylla*, *Artemisia siberi*, *Peganum harmalla* and *Scariolla orientalis*. The area is used as grazing grounds for domesticated sheep and goats. According to the available information Naderi et al. (2009) reported that *A. firouzi* had been recorded in a grassland habitat in the Mirabad plains. For recognition of the species we used a spotlight and characteristic features of *A. firouzi* that mentioned by Womochel (1978). Because jerboa is not trappable in live-traps so we caught them with a hand net, using a searchlight and motorcycle. A 30 cm diameter hand net was used for catching.

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Figure 1. Geographic distribution of *A. firouzi* in Iran.



Figure 2. Iranian jerboa (Mammalia: Dipodidae). Photo by: Saeed Mohammadi.

RESULTS AND DISCUSSION

Totally 24 individuals were captured and then released in 65 nights of trapping. The first site is located within the Veshare plains at 2054 m elevation 31°43' N, 52° 02' E. 6 species were found in a desert with semi-open canopy next to village. The surface was flat. Second locality was at 31° 44' N, 52° 08' E, in a degraded area close to the Shah-Reza to Abadeh highway. The vegetation at this site was made up by *A. aphylla* and *A. aucheri*. The area is flat and probably permanently dry. Also Brown (1980) reported that Hotson's jerboa *A. hotsoni* was caught in more barren areas. He showed a negative correlation between vegetation cover and *A. hotsoni* occurrence in

Kavir National Park. Soil texture and altitude were found to be the main factors affecting the distribution of this species (Naderi et al., 2009). Other collecting sites were located near Abadeh city in Fars Province at 31°29' N, 52° 15' E. Hassinger (1973) found *A. hotsoni* below 1000 m, whereas Euphrate jerboa *A. euphratica* occurred between 1800 and 3200 m in Afghanistan. Womochel (1978) also reported *A. hotsoni* below 1000 m in clay-loess deserts with sparse, clumped vegetation, but small five-toed jerboa *A. elater* lives in salty semiarid areas with various kinds of halophytes. Based on our data we support the 'red list' category of endangered for *A. firouzi* based on criteria (IUCN, 2009) mainly because of its small area of occupancy, its severely fragmented



Figure 3. Iranian jerboa killed in road incident. Photo by: Saeed Mohammadi.

distribution, and the decline of its habitat in east Mirabad plains that it is necessary to organize continuous monitoring of the Iranian jerboa population. We found 3 jerboas were to be killed in road accidents (Figure 3). The Iranian jerboa has been reported exclusively from a single site and is therefore one of the rarest rodent species in the world. Our data highlight the importance of flat area from South of Shah-Reza in Isfahan Province to Abadeh in Fars Province, which may harbor a larger species diversity than is currently known, including regional endemics such as the Iranian jerboa.

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