



First Record of Honey Badger, *Mellivora capensis* in Sistan and Baluchistan Province, Iran

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Abstract

One of the most important conflict between human and wildlife is road accidents. Each year, a significant number of wildlife are killed by vehicle collisions. On 8 August 2016, a carcass of a female Honey Badger or Ratel *Mellivora capensis*, was observed on the boundary of Gando protected area in Chabahar – Sarbaz road, 38 kilometers southwest of Negour. This is the first record of honey badger *Mellivora capensis* in Sistan and Baluchistan province. The cause of the animal's death was being hit by a passing vehicle in this road. This was reported in southwest of Iran, 600 kilometers away from the easternmost spot it was seen before in central Iran. This species, for the first time was recorded in a Baluchi habitat with the distance of 1300 meters from Bahu Kalat River, which is a completely different habitat in compare to other reported habitat of this species.

Keywords: honey badger, distribution range, Baluchi habitat, Bahu Kalat River.

Introduction

The Ratel or Honey Badger *Mellivora capensis* (Mustelidae) is widespread across parts of Africa, the Arabian Peninsula, western Asia and middle Asia the Indian peninsula. It is classified as least concern by IUCN and in the appendix III of the CITES. It is essentially nocturnal, but may be active during the day in areas where there is little human disturbance, and during seasons when day temperatures are cooler (Do Linh San *et al.* 2016). It is considered to be one of the rarest mammals of Iran and it has been recorded from Dez Wildlife Refuge and Ram Hormoz in the southwest, Boroueyeh Wildlife Refuge and Khabar National Park in Kerman province in the central part of this country, and near Gorgan and alongside the Atrak river in the northeast and Fars province (Joolae *et al.* 2012, Lay 1967, Harrington and Dareshuri 1976, Etemad 1985, Ziaie 2008) (Fig.1).

Honey Badger in southwest and the northeast of Iran is belong to *M. c. wilsoni* and *M. c. indica*, respectively. Also in some reports suggested that *M. c. buechneri* would have existed in north of Iran (Karami *et al.* 2008).

Material and methods

On 5 August 2016, 1500 meters distance from Dampak village, Chabahar – Sarbaz road, Balushestan area, Sistan and Baluchistan Province, Iran, a corpse of a Honey badger, died in accident by a passing vehicle, was found and reported by Chabahar Department of Environment. After checking the corpse, it was indicated that the reason of its death was a car crash. The report of this precious species for the first time from this area with geographical

coordinate of $61^{\circ}21'24''$ eastern longitude and $35^{\circ}41'25''$ northern latitude is very important because this region has a noticeable distance to the nearest and easternmost of where it was presented before in Iran (about 600 km). This road is one of the main paths in Baluchistan

which in some parts of the route, passes the border of Gando protected area and the Bahu Kalat riversides. This is a special habitat in southeast of Iran where has valuable and different faune and flore than other habitats of Iran.

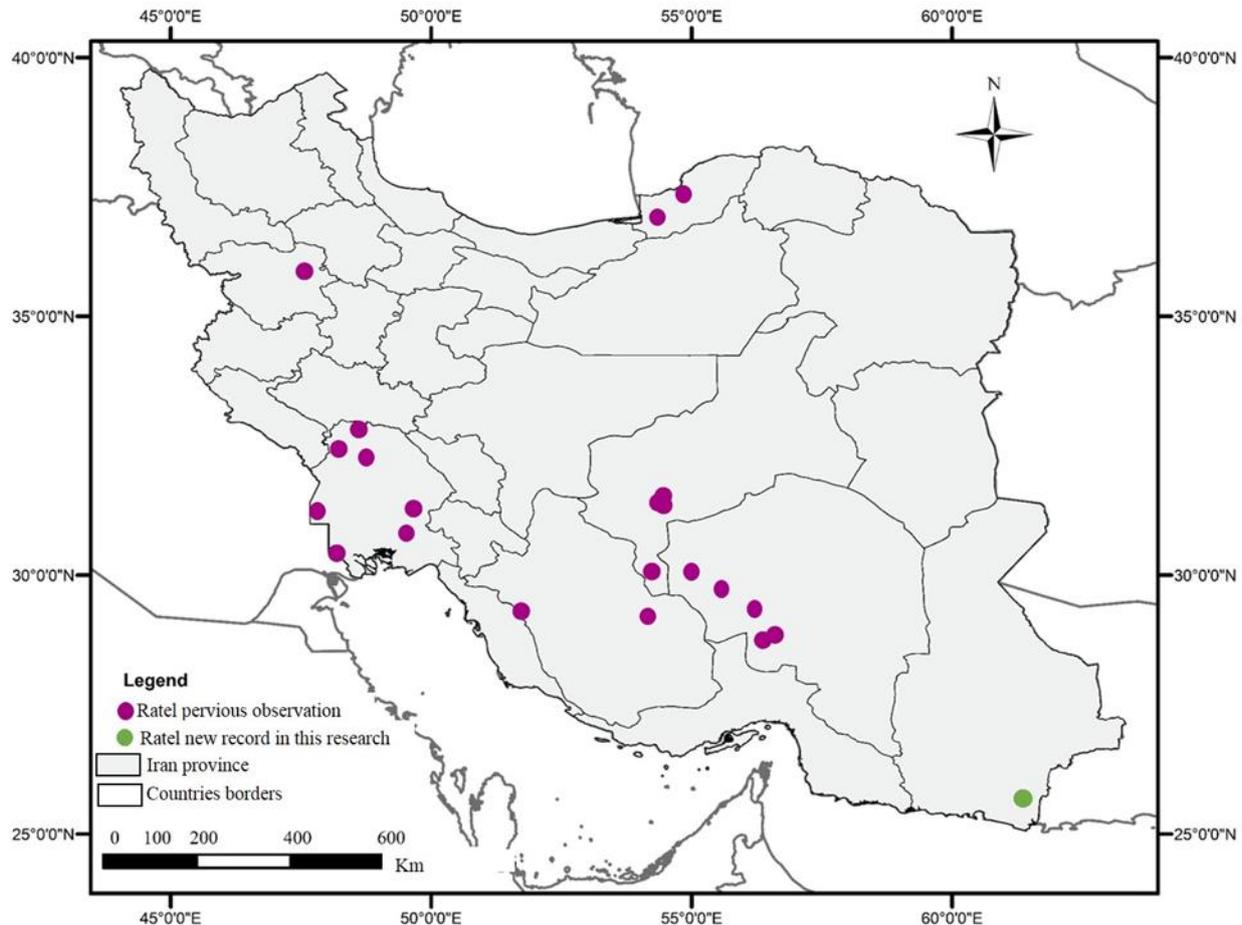


Figure 1. Violet points are pervious repot of Ratal observation based on Misonne (1959), Etemad (1985), Ziaie (2008), Joolae *et al.* (2012), new records by the Iranian Department of the Environment from 2012 to 2014 and green point is Ratal new record in Sistan and

Gando protected area with 465181 hectare is located in the southeast of Sistan and Bluchistan province, Iran, between Chabahar and Sarbaz cities, near the Iran – Pakistan eastern border and coasts of Oman Sea. In Iran, this area is the only habitat of *crocodylus palustris*, a rare and native crocodile of Iran. The nearest human residential area to the place that Honey Badger was observed, is Pat village where located in 150 meters away from this site. Also the observation area is 530 meters away from farm lands. This area is a vast plain with low slope, heavy texture and deep soil that

is mostly marl with a limited of salinity and alkalinity in some parts. According to the recently droughts, lands are mostly unutilized and only some dispersed patches of Palm-groves and farms can be observed there. At the same time, river-bed of Bahu Kalat in this plain is become widely and because of the low slope, its velocity is lowest in this region therefore rounded lands of river is become a suitable region for growth of different trees and shrubs and consequently a considerable variety of bird, rodents and mammals can be seen in this area.

In addition to *crocodylus palustris*, this area has a valuable wildlife species, such as *Canis lupus*, *Hyaena hyena*, *Caracal caracal*, *Felis silvestris*, *Felis chaus*, *Felis margarita*, *Vulpes rueppellii*, *Vulpes vulpes*, *Herpestes edwardsii*, *Herpestes javanicus*, *Funambulus pennantii*, *Gazella bennettii*, *Chlamydotis undulata* and a variety of water birds and waders.

Also the dominant plant species of this area are *Salsola drummondii*, *Suaeda vermiculata*, *Salsola imbricata*, and *Haloxylon recurvum*. *Capparis decidua* is considered as one of important tree in this region furthermore some sporadic trees such as *Acacia nilotica*, *Prosopis koelziana*, *Prosopis cineraria*, *Acacia ehrenbergiana* are being observed. At the end of Bahu Kalat river's delta next to Oman Sea, there is a special microclimate because of Mangrove forests that its dominant plant species is *Avicennia marina*. It creates a beautiful monospecies forest, which by tidal movements of the sea water, some part of this is coming out of water or plunging periodically. Other important species are *Tamarix aphylla*, *T. dioica*, *T. mascatensis*, *T. stricta*, *Saccharum ravennae*, *Calotropis procera*, *Prosopis koelziana*, *Maerua crassifolia*, *Ziziphus spina-christi*, *Alhagi mannifera*, *Aerva persica*, and *Hammada salicornica*.

Results and Discussion

Outspread human residential areas, low density of the population, suitable vegetation, a noticeable variety of prey, and available foods in the region, existence of Bahu Kalat River and gathering birds and rodents around it and also absence of natural enemies make this habitat to one of the best and safest places for Honey badger living. But it should be noted that one important threat to this species in this region is roads and pathways between villages and residential areas.

Although this is the first formal report of Honey badger that was killed by car crash in this region, but there are many reports of other

carnivores being hit by vehicles in these roads. Although there is a considerable variation of rodents, birds and other natural baits, but long periods of drought in consecutive years has had a great impact on breeding of the preys, on the other side, the presence of stray dogs and sheepdogs is a threat to the young and less experienced animals.

This species, in Baluchistan, is known as "Goorpat". Because its characteristics, being nocturnal and stealth and the fact that it does not conflict with human, people mostly do not know much about it.

Honey badger is a harmless animal in the thoughts and beliefs of local and indigenous people. Due to the tracks, signs, and dens of Honey badger, the native people are aware of the existence of it in this area; as yet any conflict between Honey badger and the local people have not been reported in this area while Turk Qashqaei *et al.* (2015) and Joolae *et al.* (2012) reported that Honey badger were killed by local people due to hunting farm animals that this may be due to lack of natural prey in those region. However, establishing warning signs to notify people and drivers in the areas where wildlife has more movement is an effective factor to reducing car accidents in the roads.

Biometry of body and skull

After transferring the carcass to the Department of Environment, biometry was done and its skeleton and skull was cleaned. Average body measurements in mm are: total length of body 610, length of tail 195, length of the foot 115 and average skull measurements in mm of honey badger are: greatest length of the skull 141, depth of the skull 64, condylobasal length 133, palatal length 61, postpalatal length 61, zygomatic breadth 81, mastoidal breadth 80, interorbital breadth 34, postorbital breadth 32, breadth of braincase 64, width of rostrum 39, length of rostrum 35, length of nasals 24, occipitonasal length 114, length of mandible 97 (Fig. 4).



Figure 2. Dead Honey Badger, 1500 meters from Dampak village, Chabahar – Sarbaz road, Balushestan area, Iran 5 August 2016, (photograph: Ahmad Emami Zarandini).



Figure 3. A: Dead Honey Badger B: Accident location Iran 5 August 2016, (photograph: A. A. Hosseini).



Figure 4. Dorsal, ventral, and lateral views of cranial and lateral view of mandible of *Mellivora capensis* (Photograph: M. A. Adibi)

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