

Distribution of Indian Crested Porcupine *Hystrix indica* (Kerr, 1792) (Mammalia: Rodentia) in Batman Province

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Abstract

In this study, it is aimed to detect the statue of *Hystrix indica* (Kerr, 1792) in Batman province. *H. indica* (Indian crested porcupine) is placed under the category of “least concern” (LC) species in the IUCN Red List, however it is a near threatened (NT) rodent species in Turkey. Three Indian crested porcupines were observed in three different localities in Batman province. The bio-ecological properties and protection measures of *H. indica*, which was investigated by direct and indirect observation techniques between the years of 2014 and 2015 in the province of Batman, were recorded in this study.

Key words: *Hystrix*, IUCN, Bio-ecological, Batman, Turkey

Hint Oklu Kirpisi *Hystrix indica* (Kerr, 1792)’nın (Mammalia: Rodentia) Batman Yöresinde Dağılışı

Özet:

Bu çalışma ile *Hystrix indica* (Kerr, 1792)’nin Batman yöresindeki varlığını tespit etmek amaçlanmıştır. *H. indica* (Hint oklu kirpisi) IUCN kırmızı listeye göre asgari endişe (LC) kategorisinde yer alan ancak Türkiye’de tehlike altında (NT) kategorisinde yer alan bir kemirgen türüdür. Batman ilinin üç farklı lokalitesinden üç oklu kirpi gözlemlendi. 2014 ve 2015 yılları arasında Batman yöresinde doğrudan ve dolaylı gözlem teknikleri ile gerçekleştirilen bu çalışma ile *H. indica*’nın biyokolojik özellikleri ve koruma önlemleri verilmiştir.

Anahtar kelimeler: *Hystrix*, IUCN, biyokolojik, Batman , Türkiye

Introduction

The Old-World porcupines (*Hystricidae*) have three subgenus included eight species (*Hystrix indica*; *Hystrix cristata*; *Hystrix africaustralis*; *Hystrix pumila*; *Hystrix sumatrae*; *Hystrix brachyura*; *Hystrix javanica* and *Hystix crassipinus*) belong to three genera distributed in the Mediterranean Europe, southern Asia, and throughout Africa [1]. In Turkey, the range covers the coastal areas along the Aegean and the Mediterranean Sea, and also the southeastern localities as far as Siirt and Bitlis provinces in Anatolia [2]. The Indian crested porcupine was first described as *H. cristata* [3] and then reported as *H. indica* by various authors [2 and 4-21]. *H. indica* is monogamous and lives solitary, except for mating or caring for young [22, references in it]. It is nocturnal and resting in a burrow or a small cave during the day [7, 22 and 23]. Its main food source is vegetable materials including fruits, grains, cultivated crops, roots, tubers, and bulbs [24]. Indian crested porcupine is not throw its quills but raises and rattles the tail spines when irritated or alarmed [25]. Nowadays the habitat destruction, pesticides and hunting for their meat in some regions lead to decrease the porcupines' population in Anatolia [15, 26 and 27]. There are not enough studies on porcupines in Turkey. Kadhim [11] expressed that these are distributed around Tigris and Euphrates Rivers by the studies on Iraq porcupines. İnaç et al., [28] recorded that *H. indica* is distributed in Adıyaman province. According to Arslan [20], the diploid number of chromosomes is $2n=66$ at *H. indica*. The diploid chromosome number of *H. cristata* from Italy and East Africa is $2n=60$ so that *H. indica* has lower diploid chromosome number than *H. cristata* [29].

Indian crested porcupine is placed under the category of "least concern" species in the IUCN Red List, however it is a near threatened rodent species in Turkey. The aim of this study is to detect the statue of *Hystrix indica* (Indian crested porcupine) in Batman province.

Material and Methods

The species of *H. indica* was investigated by direct and indirect observation techniques between the years of 2014 and 2015 in Batman province. Telescope, video camera and DSLR camera tools were used in direct observations footprints, feces, quills, food residues and nests were also used as indirect observation techniques. We

also collected information about the porcupines' presence and habitats from the people, especially hunters, living in the region.

Results and Discussion

The specimens of *H. indica* were observed and also indirectly recorded from their quills and droppings from three different localities in Batman province (Fig 1).

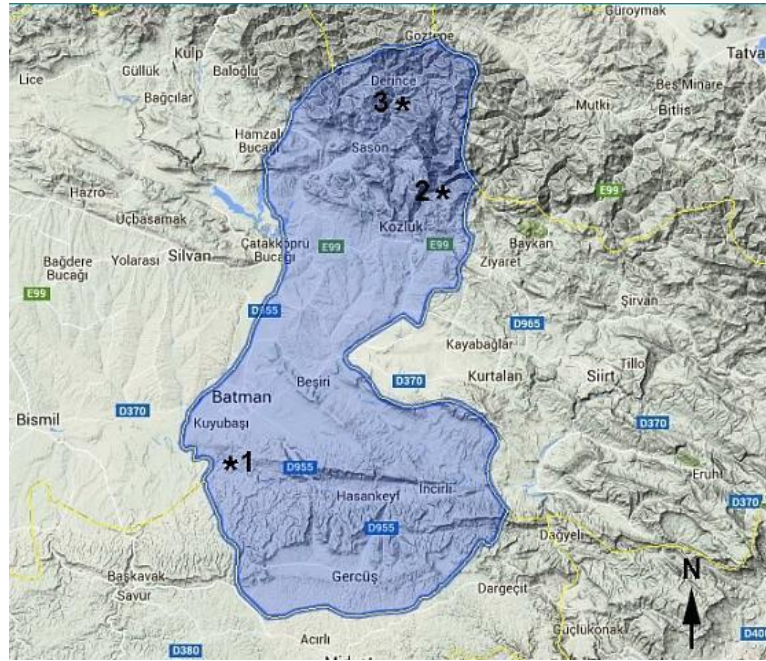


Figure 1. The observation localities of porcupines in Batman province. 1) Batman-Kuyubaşı village (37S 681130E 4182480N) 2) Batman-Kozluk-Akçakışla village (37S 727161E 4237217N) 3) Batman-Sason-Meşeli village (37S 716044E 4254834N)

One specimen of *H. indica* was observed in Kuyubaşı village (Batman province) (Fig.2A) near the watermelon cultivated fields. It crossed the river when it heard the noises. The observation locality was near the Tigris River, and its dominant vegetation was composed of oaks. As seen in the picture (Fig. 2A), porcupines are good swimmers. The other specimen and its quills were photographed from Kozluk-Akçakışla village near its nest (Fig. 2B and 2C). Similarly, Prater [23] and Atallah [7] recorded that porcupines were resting during the day in a burrow or a small cave. The main food source for porcupines was vegetables including fruits, grains, and cultivated crops [23]. The nests of the two specimens' which we observed in the day time were very close to the watermelon cultivated fields.

Quills in the posterior part of the back were thicker and flatter than the other parts of the body.

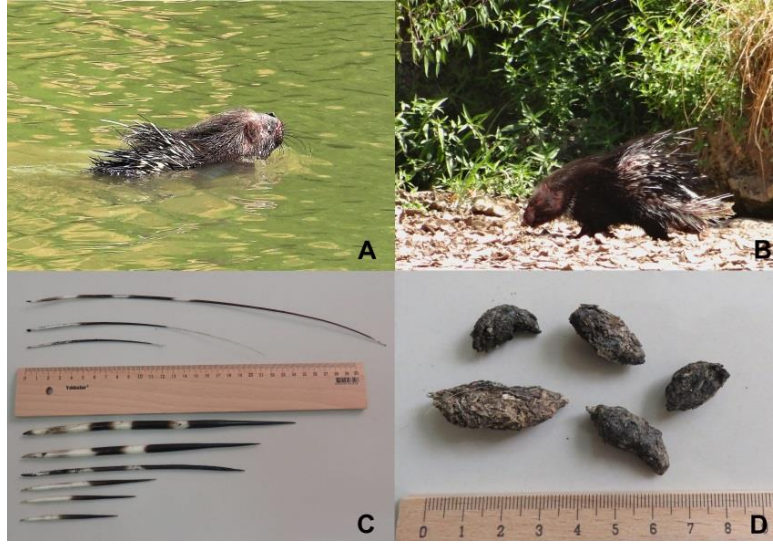


Figure 2. *H. indica* from Batman-Kuyubaşı (A); Batman-Kozluk-Akçakışla village (B) and its quills (C) and feces of *H. indica* from Batman-Sason-Meşeli village (D)

The feces of Indian porcupine observed from Sason-Meşeli village (Fig.2D) were between 15-30 mm length and its end was tapered elliptically. Droppings contain residues of plant foods.

In Turkey, the range of *H. indica* covers the coastal areas along the Aegean and the Mediterranean Sea, and southeastern Anatolia as far as Siirt and Bitlis provinces [2]. *H. indica* (Indian crested porcupine) is listed under the category of “least concern” species in the IUCN Red List; however it is a near threatened rodent species in Turkey. The first record of Indian crested porcupine was given by this study in Batman province.

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