KFBD

Karadeniz Fen Bilimleri Dergisi / The Black Sea Journal of Sciences 2(7):74-81, 2012
ISSN: 1309-4726 http://kfbd.giresun.edu.tr

The Egyptian Mongoose, *Herpestes ichneumon* L., 1758 (Mammalia: Carnivora: Herpestidae) in Hatay Province Turkey

Erol ATAY[1], Mustafa YEŞİLOĞLU[2]

[1] Department of Biology, Faculty of Arts and Sciences, Mustafa Kemal University, Hatay, TURKEY
[2] Department of Biology, Institute of Science and Technology, Mustafa Kemal University, Hatay, TURKEY

Corresponding Author: eatay@mku.edu.tr

Geliş Tarihi: 17.02.2012
Kabul Tarihi: 27.04.2012

Özet
Hatay ilinde gerçekleştirilen "Çizgili Sırtlan (*Hyaena hyaena* L.) Ekolojisi" projemizin arazi çalışmaları sırasında canlı olarak yakalanan bir firavun faresinin (*Herpestes ichneumon*) vücut morfolojisinin tarifi ve metrik ölçümleri yapılmıştır. Türkiye'den sadece Aydın ve Adana'dan kaydı bildirilen Firavun faresine ait dış karakterler ve ölçümler literatür verileriyle karşılaştırılarak değerlendirilmiş ve fotoğrafları çalışmamızda verilmiştir.
Anahtar Sözcükler: Egyptian Mongoose, *Herpestes ichneumon*, Carnivora, Herpestidae, Hatay

Hatay İlinde Firavun Faresi Herpestes ichneumon L., 1758 (Mammalia: Carnivora: Herpestidae)

Abstract
Morphological descriptions and metric measurement of the body of *Herpestes ichneumon* caught alive during the field surveys under the project with the title "The Striped Hyaena (*Hyaena hyaena* L.) Ecology in Hatay" have been made. External morphology and measures belonging to the Egyptian Mongoose (*Herpestes ichneumon*) recorded only in Adana and Aydın so far have been evaluated with the comparison to literature facts and its pictures are given in the study.
Keywords: Egyptian Mongoose, *Herpestes ichneumon*, Carnivora, Herpestidae, Hatay

Introduction

The order Carnivora is present throughout the Palaeartic region in seven families (Felidae, Canidae, Hyaenidae, Ursidae, Viverridae, Mustelidae and Procyonidae) (Özkurt et al., 1998). The Herpestidae consists of 14 genera and 33 species found in southern Asia, the East Indies, and Africa (Red-Smith et al., 2011). Egyptian Mongoose, *Herpestes ichneumon* L., 1758, is the sole species living in Turkey.

The Egyptian Mongoose, *H. ichneumon*, while being a predaceous of African origin, was kept as domestic pet as if a cat in the old times due to its efficiency in catching mice and snakes and took part in hieroglyphics on pyramids since it was considered as holy. Thus, it has been named as the Egyptian Mongoose.

The Egyptian Mongoose, *H. ichneumon* L., 1758, was originally described from the banks of the River Nile by Linnaeus in 1758. It was subsequently found to be an uncommon inhabitant of cultivated areas of the Nile Valley and the Delta, usually near water (Kasparek, 1993). The Egyptian Mongoose is a tiny predaceous animal with a smart circular body and short legged. Generally speaking, they inhabit inside the tunnels they have dug with their nails or in the caves other animals have abandoned (Demirsoy, 1998). *H. ichneumon* live in natural range from Spain (Sobrino et al., 2007), Portugal, Israel, Italy, Yugoslavia and a vast range of Africa (Demirsoy, 1998; Basuony, 2000; Kuru, 2001), South Africa (Ramsay, 2002; Berger et al., 2003); Pakistan (Barry, 1983).

The Egyptian Mongooses are ground inhabitants who prefer regions with trees near water. The Egyptian Mongooses reach sexual maturity at around 2 years of age. The average lifespan of these animals is 15 years in the wild (Demirsoy, 1998).

The food of the Egyptian Mongoose constitutes several invertebrates, fishes, amphibians, reptiles, birds and small mammals. Furthermore, they feed on various fruit. Terrestrial species, but readily enters water and swims well. Diurnal and crepuscular. It is hunt their prey by speculation and tend to take a variety of species (Basuony, 2000).

The Egyptian Mongoose live maintain a single or family environment (mother and 2 - 4 young Mongooses). They inhabit on rocky, scrubby lands, stream, streamlet and riverbanks. They copulate in each March and April. Their gestation period lasts 12 weeks and they give birth to 1 - 4 babies (Demirsoy, 1998).

Özkurt et al., (1998) recorded the body structure and metric measures of a dead female Egyptian Mongoose they have found in Yumurtalık, Adana. As the same authors

cited, the first record from Turkey was found in the river Küçük Mendes, Aydın in 1877. *H. ichneumon* exists in Hatay only Narlıca region.

Material and Methods

The project named as "The Striped Hyaena (*Hyaena hyaena* L.) Ecology in Hatay" set by the authors in 2011 and supported by Mustafa Kemal University is being maintained as field survey on a land of nearly 60 hectares in Altınözü and Yayladağı districts, in the city Antakya, Hatay. Stream banks, caverns, caves, rocky sites, scrubby lands and sparsely populated wooded areas known as ecological space of *H. hyaena* are visited through field surveys applied two days a week. Foot trace, scat, bone and living *H. hyaena* L. are looked for in such areas all day and night. Taking pictures of *H. hyaena* L. has been planned in the study having placed camera-traps onto the passages of *H. hyaena* L. as well as caves and cavern entries. Feeders made of iron sheet with a dimension of 50x30x10 cm so as to take pictures of *H. hyaena* L. Inside those feeders have been put bones of sheep and chicken. 3 camera traps have been placed into the entry of cave while two around the place where these feeders exist (Figure 1). Camera traps have been checked once a week. The places of camera traps are changed after the snapshots in the camera traps are transferred to the computer.

Figure 1. Camera trap used on the field survey

Results

Herpestes ichneumon (Figures 2, 3a, 3b) was pictured through the camera trap around Narlıca region (36° 12' N; 36° 13' E; 265 m.) in Antakya on 26.11.2011 during field survey under the project with the title "The Striped Hyaena (*Hyaena hyaena* L.) Ecology in Hatay". There are a stream whose depth gets 50 - 100 cm and width 1 m on average in winter (getting very little water in summer), sparsely populated pine trees, olive trees and bushes in the area where the pictures were taken. By digging the ground, H. *ichneumon* entered into the feeder used to take picture of *H. hyaena* L. at approximately 100 m northwest (36° 12' N; 36° 13' E; 246 m.) of the same region on 23.03.2012 (Figure 4). The Egyptian Mongoose was released after its necessary body size was taken through compass and tape measure without scaring the Egyptian Mongoose while it was inside the feeder.

Figure 2. Egyptian mongoose (*H. ichneumon*)

Figure 3 a. *H. ichneumon* feeding on chicken.

Figure 3 b. *H. ichneumon* feeding on chicken

The measurement of the Egyptian Mongoose is as follows:

Body length without tail length is 423 mm, tail length: 451 mm, front foot length: 110 mm, hind foot length: 115 mm, ear width: 25 mm, ear length: 14 mm, the distance between nose tip and eye: 40 mm, the distance between eye and ear: 55 mm, the distance between nose tip and vertex: 110 mm, the distance between the two eyes: 41 mm, the thickness of the joint of tail to the body: 70 mm, the thickness of tail tip: 15 mm.

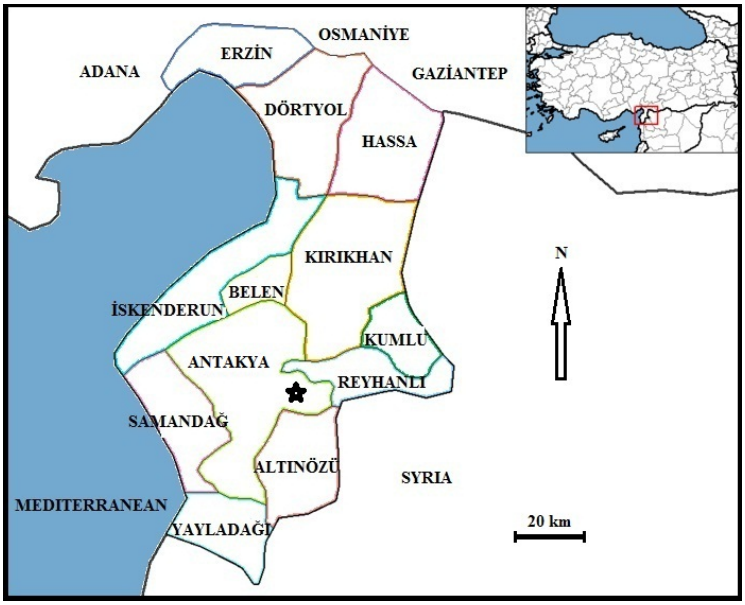

Figure 4. The place where *H. ichneumon* was captured in Antakya

Morphological Description:

Its head is long, mouth and nose sharp, and earlap is small and rounded. Its hairs on peltry are very dense and thick. Its body is round and long. Its tail is round and has a pinch of long black knot getting thinner towards the anterior of the tail. The soles of the fore and hind feet are naked. The edge of the nose is naked, without hair and deep brown. The upper and lower parts of chin are brown; eye and ear locals are brown. Head and neck are grizzled Brown with white covered with colored short hairs. Base of neck, chest, abdomen, distance between fore - hind feet and knees are brown covered with short hairs. The dorsal part, lateral, tail and legs are grizzled Brown with white skin. The hairs here are longer than those in the head.

Discussion

The measurements and morphological description of the external characteristics are found to be mostly consistent with given by Özkurt et al., (1998). The Egyptian Mongoose, is seen only in Narlıca region of Antakya during the field surveys going on. The existence and continuity of wildlife in Turkey keeps on due to a number of factors. The most effective one among them is human factor. Human beings have been causing many living species to become extinct or live in restricted areas because of industrial and agricultural activities. Mines and stone quarries, the number of which has been rapidly increasing in Altınözü, Antakya and Yayladağı in Hatay, have been slaughtering wildlife as destroying the habitat. The Stone quarries are found to have a negative effect on the environmental part such as plants, animals, air, underground and above the ground waters. One of the reasons threatening the Egyptian Mongoose in Narlıca is the activity of stone quarries (Figures 5, 6). While struggling to survive within restricted areas, such animals are being threatened by a stone quarry carrying on a business in nearly 1 km away in southwest (Figure 7). Excessive quake and disorderly noise, breaking out due to dynamite explosion around stone quarries, create fear and uneasiness for wild animals inhabiting thereabouts. Such fear and uneasiness are likely to cause such mammals as Hyaenas to migrate compulsorily. For instance, during the interviews with the locals on the existence of striped hyaenas in Narlıca, they mentioned that striped hyaenas were witnessed thereabouts until 2006, yet there has been no

appearance of the striped hyaenas during the past 5 years. Accordingly, all the caves and dens which could be used by striped hyaenas have been examined through camera traps during survey on the area; however, no signs have been encountered to prove the existence of striped hyaenas in the area mentioned above. Therefore, the possibility that striped hyaenas have emigrated by force gains weighs because of such excessive quake and noise resulting from dynamite.

Figure 5. Stone Quarry and The Habitat of *H. ichneumon*

Figure 6. A Stone Quarry in The Habitat of *H. ichneumon*

Figure 7. The Habitat of *H. ichneumon* (Spring)

Turkey, having the richest biological variety of Europe and Middle East, is counted as the ninth in terms of biological variety in Europe. Seven geographical regions of the country each possess different climate, flora and fauna types. Turkey is a rich country with 160 mammals, over 400 bird species, around 120 reptiles, 22 amphibians, 127 freshwater fish, and 384 fish (Atay, 2011). 20 mammalian species have been recorded living in Hatay locals having various height and climates in the second volume of "Important Natural Areas in Turkey" (Eken et al., 2006).

Acknowledgements

I would like to present my deepest thanks to Prof. Dr. Hüsnü Salih GÜDER, the Rector of Mustafa Kemal University, who has supported the project with the title '*Hyaena hyaena* L. ecology in Hatay' both materially and morally. Last but not least, I would appreciate the contribution of Mehmet ŞENGÜL, language specialist at Mustafa Kemal University, who has edited the article in English.

References

Atay, E. 2011. Hatay Faunasına Bakış. In: *Hatay İl Yıllığı* (Bulut, Y. and Kaya, S., Ed.), pp. 448-473, Pozitif Matbaa, Ankara, Turkey..

Barry, J. C. 1983. *Herpestes* (Viverridae, Carnivora) from the miocene of Pakistan. *Journal of Paleontology* 57 (1): 150-156.

Basunony, M. İ. 2000. Mammals. *Nature Conservation Sector Egyption Environmental* 1-36.

Berger, L. R., de Ruiter, D. J., Steininger, C. M. and Hancox, J. 2003. Preliminary results of excavations at the newly investigated coopers D deposit, Gauteng, South Africa. *South African Journal of Science* 99: 276-278.

Demirsoy, A. 1998. *Yaşamın Temel Kuralları, Omurgalılar*. Meteksan, 941 pp., Ankara.

Erken, G., Bozdoğan, M., İsfendiyaroğlu, Kılıç, S., D. T. and Lise, Y. 2007. *Türkiye'nin Önemli Doğa Alanları*. Doğa Koruma Yayınları, Ankara.

Kasparek, M. 1993. The Egyptian mongoose, *Herpestes ichneumon*, in western Egypt. *Zoology in the Middle East* 9: 31-32.

Kuru, M. 2001. *Omurgalı Hayvanlar*. Palme Yayıncılık, 841 pp, Ankara.

Özkurt, Ş., Sözen, M., Yiğit, N. and Çolak, E. 1998. Notes on distributional records and some charecteristics of five carnivore species (Mammalia: Carnivora) in Turkey. *Turk. J. Zool*. 22: 285-288.

Ramsay, S. L. 2002. Decapitation of the tortoise *Chersina angulata*: is the large grey mongoose a headhunter? *African Zoology* 37(1): 114-116.

Red-Smith, J., Lombardi, C., Winkler, A., Kimble, K., Maslanka, M., McKnight, C., Henry, B., Moresco, and Weiss, A. M. 2011. *Mongoose, Meerkat, and Fossa (Herpestidae/Eupleridae) Care Manual*. *Association of Zoos and Aquariums* Germany.

Sobrino, R., Cabezon, O., Millan, J., Pabon, M., Arnal, M. C., Luco, D. F., Gortazar, C., Dubey, J. P. and Almeria, S. 2007. Seroprevalence of *Toxoplasma gondii* antibodies in wild carnivores from Spain. *Veterinary Parasitology* 148: 187-192.