

# Observations of an American Porcupine (*Erethizon dorsatum*) in Northern Illinois

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## ABSTRACT

An American porcupine was observed in northern Illinois during the night of 11 September a second observation on 13 September 1998. Photographic evidence and quills were collected during the second encounter. The two observations occurred in the Busse Woods Forest Preserve located in Cook County. This is the most recent observation of this species in the state of Illinois.

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An American porcupine (*Erethizon dorsatum*) was observed foraging on two separate nights in 1998. The first observation occurred on 11 September at 0130 and the second on 13 September at 2330. The two observations occurred on the Busse Woods Forest Preserve (BWFP). BWFP is part of the Cook County Forest Preserve District.

The BWFP is a study area for a research project investigating the ecology of urban raccoon (*Procyon lotor*) populations. The preserve was monitored three to five times per week, with at least one nocturnal monitoring session. Both porcupine observations occurred during the nocturnal session. During the first observation, the porcupine was observed for 30 minutes. The duration of the second was 60 minutes in length. At this time, quills and photographs were taken for evidence. The external condition and behavior of the porcupine was noted on both occasions. It seemed to be foraging in a short-grass area within 25m of a woodlot. Both sightings occurred within 100m of each other. The porcupine was judged to be the same animal during both observations, based on distinctive physical characteristics. The animal was missing hair from the forehead, and had mucus around its mouth. The physical appearance indicated stress, and was similar to symptoms of other animals observed by Roze (1989) and Dodge (1982).

There is little information available on the distribution of the porcupine in this region. Parmalee (1962 and 1967) found prehistoric remains in Illinois, but there is little evidence that this species currently exists in Illinois. Hoffmeister (1989) does not include the porcupine in his account of current Illinois mammals, however he lists it as occurring in the state's fossil record. Gregory (1936) included the porcupine in his account of the Mammals of the Chicago Region. This was based on one female that was found in the

Barrington region of the state. It is unknown whether this was a wild individual, or had escaped from captivity.

Lyon (1936) and Mumford (1969) both documented observations of porcupines in Indiana between 1832 and 1910. The distribution of these records is highest in the northern portion of the state, in addition, the most recently documented observations occur in this area. Jackson (1961) found that porcupines are common in the northern counties of Wisconsin, but are a rare visitor to the southern portion of the state. Few records have been recorded in the counties of these two states that border Illinois.

BWFP is a portion of the 1,497 ha Ned Brown Preserve (NBP). The majority of the woodland habitat within the NBP is contained in the BWFP (177 ha). The remaining habitat within NBP consists of grass fields, marshes, lakes, and woodlots. The woodland area consists primarily of white oak (*Quercus alba*), sugar maple (*Acer saccharum*), ash (*Fraxinus sp.*), and basswood (*Tilia americana*). The region also contains a variety of wildflowers, which flourish in the fields of the NBP. The porcupine is known to forage on these hardwoods as well as a variety of wildflower species (Dodge, 1982 and Roze, 1989). A substantial source of food and available habitat, indicates that this area could possibly support a porcupine population (Dodge, 1982 and Roze, 1989). One of the major factors, which may limit the occurrence of this species in the area, is human activity (Woods, 1973 and Roze, 1989). The surrounding area of the BWFP is highly urbanized with major highway systems, residential area, and industrial locations near this forest preserve. Porcupine are mainly solitary animals (Woods, 1973), and tend to avoid contact with humans and highly developed areas. The main reasons why this species would seek out humans are because man-made structures provide occasional shelter in addition to providing a higher mineral availability (Dodge, 1982 and Roze, 1989). This type of contact is usually limited to areas with heavily wooded or mountainous habitats, where the presence and activity levels of humans is low (Roze, 1989).

It is not possible to determine if this observation is indicative of a range expansion for this species or an accidental movement into the area. The possibility that this animal escaped or was released from captivity also exists. It is not unheard of that wild species such as the porcupine are kept as pets (Woods, 1973). This may be a viable explanation why a species such as this was found in such an urbanized area. The injuries, which the specimen displayed, may have resulted from mishandling while it was in captivity, or possibly as a result of its movement. Malnutrition, conflicts with traffic, or domesticated animals may have also been responsible for its condition. The documentation of additional porcupines in the area may help confirm or deny a possible range expansion of this species.

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**LITERATURE CITED**

- Dodge, W.E. 1982. Porcupine. p 355-366 In: J.A. Chapman and G. A. Feldhamer eds. Wild Mammals of North America: Biology, Management, and Economics. John Hopkins University Press, Baltimore.
- Greory, T. 1936. Canada Porcupine. P 67-68 In: Mammals of the Chicago Region. Program of Activities of the Chicago Academy of Sciences.
- Hoffmeister, D. F. 1989. Mammals of Illinois. University of Illinois Press, Chicago. P. 348.
- Jackson, H. H. T. 1961. Mammals of Wisconsin. The University of Wisconsin Press, Madison, WI. p. 518.
- Lyon, M. W., Jr. 1936. Mammals of Indiana. Am. Midl. Nat. 17:1-384.
- Mumford, R. F. 1969. Distribution of the Mammals of Indiana. Monograph No. 1. Indiana Acad. of Sci. p. 114.
- Parmalee, P. W. 1962. A second porcupine record for Illinois. Trans. Illinois. St. Acad. Sci. 55:90-91.
- Parmalee, P. W. 1967. A recent cave bone deposit in southwestern Illinois. Natl. Speleol. Soc. Bull. 29:119-147.
- Roze, U. 1989. The North American Porcupine. Smithsonian Institution Press, Washington, D.C. p. 261.
- Woods, C.A. 1973. Erethizon dorsatum. Mammalian Species. 29:1-6.



Twelve wild North American porcupines (*Erethizon dorsatum*) out of a total of 44 of this species examined in an 8-year period were diagnosed with dermatopathies while being cared for at two wildlife rehabilitation clinics. Biopsy and necropsy were performed on seven and five animals, respectively. Atypical dermatophytosis was diagnosed in all cases. Lesions consisted of diffuse severe epidermal hyperkeratosis and mild hyperplasia with mild lymphoplasmacytic dermatitis and no folliculitis. Dermatophytes were noted histologically as hyphae and spores in hair shafts, and follicular and epidermal keratin. *Trichophyton* sp. was grown in 5/6 animals where culture was performed, with a molecular diagnosis of *Arthroderma benhamiae*/*Trichophyton mentagrophytes* in these five cases. North American porcupines, *Erethizon dorsatum*, have the northern most range of all porcupines. They are found throughout most of Alaska and Canada, in the northern part of the Great Lakes region, as well as throughout the west and northeast regions of the United States. Porcupines in the forests of New York and Massachusetts, in the Great Basin Desert, and in the woodlands of Texas have been well studied. North American porcupines, *Erethizon dorsatum*, have the northern most range of all porcupines. They inhabit much of North America between the Arctic Ocean and northern Mexico. Porcupines are found throughout most of Alaska and Canada, in the northern part of the Great Lakes region, all throughout the west and northeast regions of the United States. Populations have been studied extensively in the eastern deciduous forests of New York and Massachusetts, the Great Basin Desert, and the woodlands of Texas.