

## Short Communication

# The First Record of a Bat Found Ensnared by a Plant in the Occupied Palestinian Territories

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**Abstract:** This is the first documented record of a bat ensnared by a plant in the Arab world. Kuhl's pipistrelle, *Pipistrellus kuhlii* (Kuhl, 1817), was caught on the Holy Hawksbeard, *Picris altissima* L. Delile, in Bethlehem, the Occupied Palestinian Territories (West Bank).

**Keywords:** Bat death, West Bank, *Pipistrellus kuhlii*, *Picris*.

Causes for bats' decline include diseases, predation, and habitat destruction (Looney, 1972; Wibbelt *et al.*, 2010; Russo and Ancillotto, 2015; Amr *et al.*, 2016). Accidental deaths in animals, like in humans, should not be ignored as a cause of mortality. There is a number of reported cases in the 20<sup>th</sup> century of bats killed by being entangled on thorns of cacti or plants such as Burlock (*Actium* spp.) from North America (Hamilton, 1939; Verts, 1988; Hendricks *et al.*, 2003; Norquay *et al.*, 2010; Pigage *et al.*, 2011), from Brazil (Jacomassa *et al.*, 2017), and from Ukraine (Merzlikin, 2017). To the researchers' knowledge, there is no record of such fatality in bats from the Arab world.

Likely, due to its adaptability to human created habitats, *Pipistrellus kuhlii* is the most common insectivorous bat species in the Eastern Mediterranean region, and can be found in all habitats from arid areas to mountains with high elevations (Qumsiyeh, 1996). In April 2019, a specimen was found ensnared and mummified on the plant (Figure 1-B), Hawksbeard (*Picris altissima*)

in the garden of the Palestine Museum of Natural History, Bethlehem, Palestine (Figure 1-A). It seems that the bat was entangled while trying to approach the pond for the sake of feeding on insects or drinking. The echolocation data from the area showed that this species is the most common in the museum garden. Identification was based on the dental morphology and the presence of a white band on the margin of the wing (Qumsiyeh, 1996). *Picris altissima* is a member of the family Asteraceae, and is common in the Mediterranean region across varied habitats. Such mortality on plants must be low; during the studying of bats in this region for decades, no such accidental deaths of bats on plants have been reported (Qumsiyeh, 1985; Qumsiyeh, 1996). Because the numbers of all insectivorous bats in this region are declining, it is worthwhile to conduct studies on the causes of mortality of these ecologically endangered species.

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Figure 1. A: PMNH pond, the red arrow shows where the bat was found, B: *P. kuhlii* ensnared on *P. altissima*.

## References

- Amr, ZS, Handal, EN, Bibi, F, Najajreh, MH and Qumsiyeh, MB. 2016. Change of diet of the Eurasian Eagle Owl, *Bubo bubo*, suggest decline in biodiversity in Wadi Al Makhrouh, Bethlehem Governorate, Palestinian Territories. *Slovak Raptor J.*, **10**: 75–79.
- Hamilton, WJ, Jr. 1939. Small mammals trapped by plants. *J Mammal.*, **20**:110.
- Hendricks, P, Carlson, Jand Currier, C. 2003. Fatal entanglement of western long-eared myotis in burdock. *Northwestern Naturalist*, **84**: 44-45.
- Jacomassa, FAF, Pacheco, SM, Miranda, JMD and de Oliveira, KPA. 2017. Bats found entangled in natural and artificial traps. *Mammalia*, **82**: 65-67.
- Looney, MW. 1972. Predation on bats by hawks and owls. *Bull Oklahoma Ornithol Soc.*, **5**:1-4.
- Merzlikin, I. 2017. Cases of bat deaths associated with plants. *Proc Theriolog School*, **15**:136-138.
- Pigage, JC, Bunn, RL and Peyton, RD. 2011. Multiple bats entangled on cactus. *The Prairie Naturalist*, **43**: 64-65.
- Norquay, KJO, Menzies, AK, McKibbin, CS, Timonin, ME, Baloun, DE and Willis, CKR. 2010. Silver-haired bats (*Lasiorycteris noctivagans*) found ensnared on burdock (*Arctium minus*). *Northwestern Naturalist*, **91**: 339-342.
- Qumsiyeh, MB. 1985. The bats of Egypt. Special publication, *Museum of Texas Tech University*, **23**:1-102.
- Qumsiyeh, MB. 1996. **Mammals of the Holy Land**. Texas Tech University Press.
- Russo, D and Ancillotto, L. 2015. Sensitivity of bats to urbanization: a review. *Mammalian Biol.*, **80**: 205-212.
- Verts, B J. 1988. Two bats caught on a plant. *The Murrelet*, **69**: 36-38.
- Wibbelt, G, Moore, M S, Schountz, T and Voigt, C C. 2010. Emerging diseases in Chiroptera: Why bats? *Biol Letters*, **6**: 438-440.