

## REVIEW

## Danger underground and in the open – predation on blind mole rats (Rodentia: Spalacinae) revisited

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### ABSTRACT

1. Being totally blind with no tail or pinnae, blind mole rats are the most specialised rodents for the subterranean lifestyle. However, they come to the surface occasionally due to unusual climatic events, for foraging, to collect hay for bedding material, for dispersal as subadults, due to intraspecific aggression, and in illness.

2. The only previous review suggests that surface activity of and predation on blind mole rats is rare and that they are preyed on mainly at night by owls.

3. Based on 57 scientific publications, 14 unpublished reports and several personal observations (from 15 countries), the present review reveals that altogether 26 species of bird and mammal prey on blind mole rats either regularly or occasionally. It is evidenced that not only the number of predators, but also the importance of blind mole rats in their diet has been seriously underestimated.

4. The tight relationship between the colour of the soil and the colour of the pelage of blind mole rats suggests the importance of diurnal raptors via their selective impact. Predation by mammals happens relatively often, and mustelids hunt blind mole rats not only on the surface, but probably also inside their burrows. The labyrinth-like structure of the burrows may play a vital role in confusing mammalian predators trying to hunt inside the burrows, and may increase the blind mole rat's chance of escape.

5. With the proven importance of blind mole rats as a food resource for several threatened species of birds of prey, the survival, reproductive success, and population size of these species may partly depend on the density of the rodents. Although many species within the blind mole rat subfamily are themselves threatened to various extents, the role of blind mole rat populations in carnivore and raptor conservation should be considered and evaluated.