

Potential predation of a barred grass snake *Natrix helvetica* by a brown rat *Rattus norvegicus*, with a link to video evidence

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The barred grass snake *Natrix helvetica* is a medium-sized snake species typically growing to 150 cm in length and found throughout north-western Europe (Speybroeck et al., 2016). The brown rat *Rattus norvegicus* is a very widespread and highly adaptable mammal exploiting a wide range of food resources, especially cereals and their products. However, *R. norvegicus* may consume meat opportunistically and has been observed eating live snakes (Swanson, 1952; Fitch, 1963; Hummer & Tolley, 2008; Reynolds et al., 2023).

On the afternoon of 16 August 2024 at approximately 15:50 h, a subadult *N. helvetica* was seen crossing a slightly shaded footpath at Culford Park, West Suffolk (52° 18'11" N, 000° 40'13" E). Shortly afterwards, an adult *R. norvegicus* attempted to grab the snake by the tail (Fig. 1). The rat came from the same direction that the snake had travelled from, suggesting that it was following the snake. After initially attacking the snake, the rat grabbed it roughly 20 cm further up the body and started chewing on it. At this point, the snake feigned death before it was carried off into the undergrowth, at which point the view of both animals was lost (BHS Video, 2025). At the time of the observation the *N. helvetica* was alert and the weather was still bright and sunny with an air temperature of 23–25°C.



Figure 1. A still from the video where a brown rat *Rattus norvegicus* can be seen preying upon a barred grass snake *Natrix helvetica*, later it disappeared with the snake into the undergrowth

Our observation demonstrates the brown rat's adaptability and willingness to exploit a wide range of food sources, although there may be potential risks involved if the snake had been larger or venomous. As seen in the video, the rat initially grabbed the snake by the tail end in a way that would be very risky if it had been a venomous snake and was apparently not distracted by the snake's foul-smelling and tasting cloacal gland secretions. This behaviour might also indicate a scarcity of typical food sources for rats. Observing this rat preying on a grass snake could signal changes in food availability, forcing the rats to seek alternative food sources, or may just indicate opportunistic behaviour.

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