

Feature

Do break-back and mole traps cause unnecessary suffering?

New research shows that some legally-used spring traps for mice, rats and moles may be more humane than others. Sophia Gallia investigates...

LETHAL SPRING TRAPS ARE WIDELY USED for killing small mammals in the UK. Gamekeepers are familiar with them, and the fact that in general they are covered by legislation and government approval, based primarily on humane-ness. However, mole traps and break-back traps for rats and mice do not require such approval. Indeed, such traps are widely available from garden centres, and on the internet, and are used by householders, pest controllers and mole trappers. However, they vary hugely in price and quality.

A team of researchers from Oxford University and Imperial College, London, have examined the performance of 18 types of rat trap, 23 types of mouse trap and a range of the three most common mole trap types (scissor, Duffus and talpa). The study did not involve killing any animals; instead the researchers measured the mechanical performance of the traps, which is often used as an indicator of welfare performance. The researchers measured the impact momentum (the speed of the killing bar at the point that it strikes the victim), and the clamping force (the strength of the grip on the victim once trapped) of the traps. These two factors may cause death independently, but evidence suggests that a combination of the two can accelerate the speed of death. Among the traps used for each species, the impact momentum varied six to eight-fold, and clamping force values four to 5.5-fold.

Interestingly, the team found no relationship between the price and the mechanical performance of traps for any species, except talpa mole traps. The researchers said: "We are unable to judge the direct welfare impact of the traps tested, but rather the potential welfare



The 41 break-back traps tested by researchers in this study.

threat associated with their exemption from approval. The wide variation in mechanical performance in traps for each species, overlap in performance between rat and mouse traps and increasing availability of weaker plastic rodent traps indicate considerable scope for improving the humaneness of spring traps for rats, mice and moles. We conclude that all such traps should be subject to the UK approval process. New welfare categories might improve trap standards further. Our results could also help improve rodent trap design and assist consumers in selecting more powerful traps. Many thousands of rats, mice and moles might benefit."

An NGO spokesman said: "Gamekeepers use government-approved traps for their professional pest control. It is shocking that potentially inhumane break-back traps, and mole traps, are easily available for householders and pest controllers to use willy-nilly, without any

thought for the welfare of the rat, mouse or mole being trapped. We welcome this research and hope that it leads to better trapping standards across the board."

MOUSE, RAT AND MOLE TRAP RESEARCH

This article is based on the report *Mechanical performance of rat, mouse and mole spring traps, and possible implications for welfare performance*. Sandra E Baker, Stephen A Ellwood and David W Macdonald (Wildlife Conservation Research Unit, Dept of Zoology, University of Oxford, Vito L Tagarielli (Dept of Aeronautics, Imperial College, London). The full report is available at: www.plosone.org/article/info%Adoi%2F10.1371%2Fjournal.pone.0039334. The work was funded by the RSPCA.