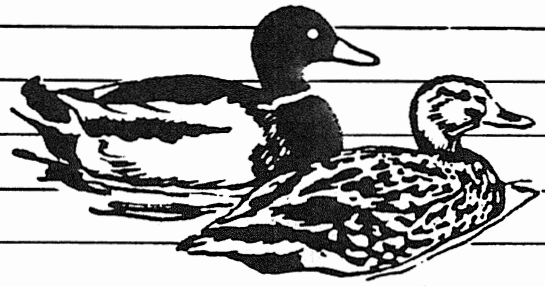
Research



Information bulletin

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Havahart Live Traps Capture More Lightweight Rodents

Effectiveness of Havahart and Sherman Traps Was Compared

Results of published studies vary on which live traps are most effective in capturing rodents. Further, meadow jumping mice (*Zapus hudsonius luteus*), a species listed as endangered in New Mexico in 1993, were reported to be difficult to capture due to trap shyness. Because of this, we compared the effectiveness of two trap types: 7.5- × 9.0- × 23-cm Sherman live traps and 7.6- × 7.6- × 25.4-cm Havahart live traps. These traps were set in alternating sequence in 50-trap grids or transects. Trapping grids consisted of 5 rows of 10 traps each spaced 5 m apart. Trapping transects consisted of traps in two parallel lines ≤10 m apart, each with 25 traps spaced at 5-m intervals. Grids were placed in moist-soil impoundments, sloughs, and croplands. Transects were established along canals and ditch banks where lack of space precluded use of grids. All traps were set so that a minimum amount of pressure on the treadle would release the trigger to allow capture of lighter-weight rodents. Traps were moved after 600 trap-nights.

Trap Effectiveness Was Related to Rodent Weight

We trapped 4,984 rodents during 29,259 trap-nights from June through November 1991 and March through August 1992. We did not trap during intervening winter months because meadow jumping mice were hibernating. Individuals of nine species of rodents were captured, but most of the captures were white-footed mice (*Peromyscus leucopus*, 2,141), cotton rats (*Sigmodon hispidus*, 2,127), western harvest mice (*Reithrodontomys megalotis*, 267), meadow jumping mice (164), and house mice (*Mus musculus*, 125). More western harvest mice, which weigh from 10 to 20 g, were captured in Havahart traps during both trapping periods. Conversely, more cotton rats, whose weights ranged from 70 to 200 g, were captured in Sherman traps during both trapping periods. More white-footed mice were captured in Sherman traps during the second trapping season, but there was no difference in captures for this species during the first season. White-footed mice weigh from 15 to 50 g. Meadow jumping mice, whose weights

ranged from 8 to 32 g ($\bar{x}$ = 18.6 ± 3.8 g) in this study, were caught more often in Havahart traps during the second season, but again there was no difference in trappability during the earlier trapping effort. Captures did not differ for house mice, which weigh 18 to 30 g. On the basis of these results, we believe that Havahart traps are more effective in capturing lighter-weight rodents, whereas Sherman traps are more effective in capturing heavier rodents. However, 85% of the 2,834 traps that malfunctioned were Havaharts—most of these were sprung but empty.

Weigh Malfunctioning Rate Against Effectiveness

Use of Sherman traps would greatly reduced the time spent in running traps, because Shermans would not have to be reset as often. Also, Sherman traps collapse, which allows the trapper to save time by carrying many more when moving trap lines. The greater trapping effectiveness of Havaharts, however, may outweigh their disadvantages because 69% of meadow jumping mice and 68% of western harvest mice were captured in Havahart traps.

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